

**UNITED STATES DEPARTMENT OF LABOR**

**JAMES J. DAVIS, Secretary**

**BUREAU OF LABOR STATISTICS**

**ETHELBERT STEWART, Commissioner**

**MONTHLY  
LABOR REVIEW**

**VOLUME 29**

**NUMBER 5**



**NOVEMBER, 1929**

**UNITED STATES  
GOVERNMENT PRINTING OFFICE  
WASHINGTON : 1929**

UNITED STATES DEPARTMENT OF LABOR

BUREAU OF LABOR STATISTICS

ATTESTANT STEWART C. CROSSLAND

MONTHLY

# LABOR REVIEW

NUMBER 2

VOLUME 22

## CERTIFICATE

This publication is issued pursuant to the provisions of the sundry civil act (41 Stats. 1430) approved March 4, 1921.



NOVEMBER, 1929

UNITED STATES  
GOVERNMENT PRINTING OFFICE  
WASHINGTON, 1929



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### **This Issue in Brief**

*Data covering approximately 270,000 workers in widely scattered sections of the country show that 84 per cent of these went on the 5-day week basis between June 1 and October 6, 1929. Wage increases obtained in the building trades ranged from 2½ cents to 25 cents per hour, the average being about 12½ cents. Increases in the printing and publishing industry ranged from 25 cents to \$5 per week, but in the majority of cases were \$1 or less. Page 99.*

*More than two-fifths of the families of Federal employees included in the bureau's recent cost-of-living survey are buying one or more articles on the installment plan. There seemed to be no relation between income and installment buying. Furniture was the most common article so purchased, but other commodities were clothing, radios, automobiles, musical instruments, sewing machines, washing machines, etc. One article only was being bought by 136 families, while 59 families were buying 2 articles, 10 were buying 3 articles, 3 were buying 4 articles, and 2 were buying 5 articles. Page 1.*

*The average cost of a one-family dwelling in the first half of 1929 was \$4,902. Of the cities having 500,000 population and over, the cost was lowest in St. Louis (\$3,958), and ranged from this point upward to \$126,667 in the Borough of Manhattan, New York City, where only three dwellings of this type were built during the 6-month period. While the average expenditure was greater in the boroughs of Manhattan and the Bronx, Washington, D. C., showed a higher expenditure per one-family dwelling than any other city considered as an entity. Two-family dwellings averaged \$4,005 in all cities combined. The average cost per family apartment in apartment buildings was \$4,454. Page 10.*

*The prevalence of illness is lowest among the families rated as well to do or as comfortably provided for, and increases as the economic status declines, according to a recent study by the United States Public Health Service. There seems to be no consistent association between the kind of sickness and the economic status, however. Those families which were economically better off had medical attention to a considerably greater extent than the remainder of the population. Page 45.*

*The Canadian wheat pool, a cooperative organization formed in 1923, now controls from a fifth to a fourth of the total world supply of exportable grain. In 1928 it sold nearly 223,000,000 bushels of wheat. Some 284,000 farmers in the three prairie Provinces of Alberta, Manitoba, and Saskatchewan are members of the pool. Nearly one-third of all the local elevators in these three Provinces are owned by it, and more than \$4,600,000 has been returned to the members in patronage dividends. Page 59.*

*Of 423 cases of arbitration from 1865 to 1929, for which the bureau has records, 299 were settled in favor of the workers, 110 were settled in favor of the employers, and 14 were decisions partly in favor of one side and partly of the other. During the war period more than 90 per cent of the arbitration cases were decided in favor of the workers. Page 14.*



*Building permits authorizing the construction of buildings to an amount of \$174,157,317 were issued in 264 cities in September, 1929. Monthly data regarding the volume of building permits issued will hereafter be collected by the Bureau of Labor Statistics, from those cities having a population of 25,000 or over. Page 83.*

*The employment situation showed an improvement in certain parts of Europe during the summer of 1929 as compared with the same period of the preceding year. Fewer persons were out of work in the early summer of 1929 than in 1928, in 11 of the 18 countries for which data were obtained. On the other hand, the number of unemployed increased in seven countries—Czechoslovakia, Estonia, Finland, Germany, Hungary, Latvia, and Sweden. Page 143.*

*Average earnings per hour in the iron and steel industry have increased from 63.7 to 67.4 cents since 1926, while full-time weekly earnings have risen from \$34.41 to \$36.48. Full-time hours per week increased 0.2 hour. Besides summary data for all 10 departments of the iron and steel industry combined, the article on page 91 gives detailed figures for bar mills, standard-rail mills, sheet mills, and tin-plate mills.*

*A further decline took place in the death rate from lead poisoning during the period 1925-1927.—There were 142 such deaths in 1925, 144 in 1926, and 135 in 1927. Painters led all the occupational groups in number of deaths, with 216 cases. Metal and lead workers together had 35 cases, laborers 35, and printers 12. There were only 5 deaths among employees in the manufacture of storage batteries, which is rather surprising in view of the extensive exposure. It is explained that although lead absorption is very common in that industry, lead poisoning in the serious form is very rare. Page 40.*

*About 67,100 organized and 27,160 unorganized painters work under national collective agreements in Europe.—Labor agreements, either local or national, regulate the working conditions of nearly all the painters in most of the principal countries of Europe. In only small and unimportant places are there no agreements. Working hours range from 44 to 46½ hours per week in England and Scotland to 50 hours in Hungary and some parts of Switzerland. Wages per hour range from 18 cents in Czechoslovakia to from 43 to 46 cents in Sweden. Page 25.*

*A membership of nearly 12,000,000 persons and assets of more than \$8,000,000,000 are shown by the annual statistics of the building and loan associations in the United States.—Mortgage loans outstanding at the end of 1928 amounted to more than \$7,000,000,000. For the past five years these organizations, it is stated, have maintained an annual increase in assets of more than \$800,000,000. Page 58.*



# MONTHLY. LABOR REVIEW

U. S. BUREAU OF LABOR STATISTICS

VOL. 29, NO. 5

WASHINGTON

NOVEMBER, 1929

## Cost of Living of Federal Employees in Five Cities

### Part 4.—Installment Buying

THE Bureau of Labor Statistics, in cooperation with the Personnel Classification Board, made a study in 1928 of the cost of living of families of 506 Federal employees in five cities, not including Washington.<sup>1</sup>

On account of the widespread interest in installment buying the bureau secured from the families canvassed data relative to articles—tangible personal property—on which installment payments were made during the year covered by the study.

The term "installment buying" means a purchase of an article for which the price of the article is to be paid in fixed portions at stated intervals, and usually with a payment of part of the purchase price at the time of taking possession of the goods. Partial payments have long been common in real estate sales, and installment buying in the purchase of sewing machines and pianos has been common for 50 years or more. The system had a large expansion with the coming of automobiles. The greatest development in installment buying has been since the World War, and now there is hardly a commodity that can not be purchased on the installment plan.

Of the 506 families canvassed, 210, or 41.5 per cent, were making installment payments during the year for which the families reported. Table 1 classifies these families by cities and by income groups.

TABLE 1.—FAMILIES MAKING INSTALLMENT PAYMENTS, BY CITY AND INCOME GROUP

Income group	Baltimore			Boston			Chicago		
	Families canvassed	Families buying on installment		Families canvassed	Families buying on installment		Families canvassed	Families buying on installment	
		Number	Per cent		Number	Per cent		Number	Per cent
Under \$1,500.....	12	5	41.7	8	4	50.0	4	2	50.0
\$1,500 and under \$1,800.....	14	10	71.4	8	4	50.0	5	3	60.0
\$1,800 and under \$2,100.....	16	10	62.5	22	7	31.8	13	5	38.5
\$2,100 and under \$2,400.....	11	6	54.5	17	10	58.8	14	7	50.0
\$2,400 and under \$2,700.....	14	9	64.3	21	5	23.8	22	10	45.5
\$2,700 and under \$3,000.....	9	7	77.8	8	2	25.0	12	8	66.7
\$3,000 and under \$3,300.....	11	6	54.5	6	2	33.3	10	5	50.0
\$3,300 and under \$3,600.....	5	3	60.0	6	1	16.7	8	5	62.5
\$3,600 and over.....	4	1	25.0	6	-----	-----	14	7	50.0
Total.....	96	57	59.4	102	35	34.3	102	52	51.0

<sup>1</sup> Certain parts of the study have already been published in recent numbers of the Labor Review, as follows: Income and general expenses, August; expenditures for food, September; and miscellaneous expenses, October, 1929. The present article concludes the series.

TABLE 1.—FAMILIES MAKING INSTALLMENT PAYMENTS, BY CITY AND INCOME GROUP—Continued

Income group	New York			New Orleans			All cities		
	Fami- lies can- vassed	Families buying on installment		Fami- lies can- vassed	Families buying on installment		Fami- lies can- vassed	Families buying on installment	
		Num- ber	Per cent		Num- ber	Per cent		Num- ber	Per cent
Under \$1,500.....	5	1	20.0	18	7	38.9	47	19	40.4
\$1,500 and under \$1,800.....	13	7	53.8	18	6	33.3	58	30	51.7
\$1,800 and under \$2,100.....	16	4	25.0	16	5	31.3	83	31	37.3
\$2,100 and under \$2,400.....	14	1	7.1	14	7	50.0	70	31	44.3
\$2,400 and under \$2,700.....	20	4	20.0	14	7	50.0	91	35	38.5
\$2,700 and under \$3,000.....	12	4	33.3	11	5	45.5	52	26	50.0
\$3,000 and under \$3,300.....	7	3	42.9	9	3	33.3	43	19	44.2
\$3,300 and under \$3,600.....	8	1	12.5	3	-----	-----	30	10	33.3
\$3,600 and over.....	6	1	16.7	2	-----	-----	32	9	28.1
Total.....	101	26	25.7	105	40	38.1	506	210	41.5

The per cent of families making installment payments varies as between the income groups, but there appears to be no relationship between income and the proportion of families that are having such expenditure. Referring to the total for the five cities, the highest percentage of families buying on installment (51.7) is found in the \$1,500-\$1,800 group. The next highest percentage (50) is in the \$2,700-\$3,000 group. The lowest percentages are in the two highest income groups. Installment buying, so far as can be determined by these figures, seems to be a matter of family inclination or necessity rather than of income.

The average income and the average expenditure of the families during the year are shown in Table 2, which is composed of two sections—one relating to the families that were buying on installment, and the other to the families that made no installment payments during the year of the study.

TABLE 2.—INCOME AND EXPENDITURE OF FAMILIES BUYING AND FAMILIES NOT BUYING ON INSTALLMENT

City	Families paying installments during year					Families making no installment pay- ments during year				
	Num- ber of fami- lies	Per cent of all fami- lies	Average income	Average expense	Average deficit	Num- ber of fami- lies	Per cent of all fami- lies	Average income	Average expense	Average deficit
Baltimore.....	57	59.4	\$2,303.22	\$2,452.56	\$149.34	39	40.6	\$2,386.05	\$2,388.19	\$2.14
Boston.....	35	34.3	2,185.91	2,398.64	212.73	67	65.7	2,529.06	2,682.42	153.36
Chicago.....	52	51.0	2,818.57	3,051.83	233.26	50	49.0	2,670.26	2,899.06	228.80
New York.....	26	25.7	2,388.83	2,587.65	198.79	75	74.3	2,516.12	2,596.05	81.93
New Orleans.....	40	38.1	2,150.64	2,352.26	201.62	65	61.9	2,220.65	2,395.15	174.50
Total.....	210	41.5	2,392.82	2,580.58	196.76	296	58.5	2,463.06	2,595.79	132.73

The article in the August Review showed that the majority of the families had deficits, although there were other families that had surpluses at the end of the year. When the families are brought

together as a whole, there is a deficit. Table 2 shows that the income and expenditures were less and the deficit greater in the families buying on installment than in the families not so buying. As a whole, the families in both groups were running behind. In this connection it should be recognized, however, that some of the articles bought are more or less of a permanent character and add to the family capital investment.

The various commodities bought on the installment plan by these families have been divided into 10 classifications. Table 3 shows, by cities, the commodities in the order of their frequency of purchase. Inasmuch as many of these families purchased more than one commodity on installment during the year, the total of the items is greater than the total of the number of the families buying.

TABLE 3.—COMMODITIES BOUGHT ON INSTALLMENT PLAN, BY KIND OF ARTICLE AND BY CITY

Item	Balti- more	Boston	Chicago	New York	New Orleans	All cities
Total families canvassed.....	96	102	102	101	105	506
Families buying on installments.....	57	35	52	26	40	210
Number of families buying specified articles:						
Furniture and house furnishings.....	41	20	29	17	30	137
Clothing.....	11	6	3	7	1	28
Radios.....	6	1	13	4	1	25
Automobiles.....	6	3	9		3	21
Musical instruments—						
Pianos.....	5	2	3	1	1	12
Phonographs.....	2		1		4	7
Saxophone and trumpet.....		1				1
Stoves.....	4	1	5	1	5	16
Washing machines.....	6	3	6			15
Sewing machines.....	3		1	4	4	12
Vacuum cleaners.....	1	2	7	1	1	12
Miscellaneous items—						
Coal.....	1	2	1			4
Books.....	1		1			2
Automobile tires.....	1				1	2
Jewelry.....	1				1	2
Electric refrigerators.....	2					2
Awings.....	2					2
Furnaces.....		1	1			2
Water spouting.....			1			1
Cemetery lot.....			1			1
Radio battery eliminator.....	1					1

Furniture and house furnishings are by far the most frequently purchased articles coming into the home under the installment plan of buying. Clothing, radios, automobiles, and musical instruments rank next in order.

Table 3 shows by city and by kind the articles on which installment payments were being made. Table 4 consolidates the data for the five cities and gives information as to the cost price of the articles, the payments made in the preceding year or years, and in the current year, and the amount remaining unpaid at the end of the year.

In Table 4 a family making payments on two or more articles is counted under each article. The total of the families listed is 305, while only 210 families were making installment payments. Thus there was a duplication of 95.



TABLE 4.—INCOME AND EXPENDITURES, FAMILIES BUYING ON INSTALLMENT, AVERAGE COST PRICE OF ARTICLES AND AVERAGE AMOUNT PAID

Item	Num- of fam- ilies	Average income	Average expendi- tures	Average cost price of articles	Installment payments on articles paid on during current year					
					In preceding year or years		In current year		Owing at end of year	
					Fam- ilies	Aver- age paid	Fam- ilies	Aver- age paid	Fam- ilies	Aver- age
Furniture and house fur- nishings.....	137	\$2,279.77	\$2,469.01	<sup>1</sup> \$250.53	59	\$131.79	137	\$95.04	102	\$129.73
Clothing.....	28	2,049.65	2,308.21	<sup>2</sup> \$84.68	3	38.83	28	50.40	22	41.30
Radios.....	25	2,754.70	3,024.40	188.87	6	81.33	25	78.94	19	118.96
Automobiles.....	21	2,813.57	3,165.98	584.14	5	342.80	21	265.04	14	340.15
Musical instruments:										
Pianos.....	12	2,356.94	2,531.17	388.38	7	182.57	12	95.96	12	185.92
Phonographs.....	7	2,451.41	2,544.27	166.57	5	67.40	7	77.57	4	71.50
Saxophone and trum- pet.....	1	2,429.50	2,694.50	200.00	1	56.00	1	121.00	1	23.00
Stoves.....	16	2,563.74	2,771.76	69.33	5	44.40	16	39.75	9	27.92
Washing machines.....	15	2,703.47	2,715.12	125.60	4	37.48	15	79.81	8	67.12
Sewing machines.....	12	2,562.52	2,701.42	107.96	3	44.33	12	43.92	9	70.61
Vacuum cleaners.....	12	2,660.49	3,119.70	57.29	4	19.00	12	42.58	3	33.50
Miscellaneous:										
Coal.....	4	2,248.58	2,436.08	80.13	-----	-----	4	72.38	2	15.50
Books.....	2	2,350.31	2,390.28	74.70	-----	-----	2	17.50	2	57.20
Automobile tires.....	2	2,951.50	3,295.50	49.81	-----	-----	2	38.68	1	22.25
Jewelry.....	2	1,998.13	2,219.44	159.48	-----	-----	2	47.35	2	112.14
Electric refrigerators.....	2	3,876.75	3,514.25	271.00	-----	-----	2	65.50	2	205.50
Awnings.....	2	2,462.95	2,611.27	50.00	1	26.50	2	36.75	-----	-----
Furnaces.....	2	2,284.00	2,544.00	332.50	-----	-----	2	120.75	2	211.75
Radio battery elimi- nator.....	1	2,905.00	3,105.00	60.00	-----	-----	1	60.00	-----	-----
Cemetery lot.....	1	3,132.00	4,087.00	400.00	-----	-----	1	175.00	1	225.00
Water spouting.....	1	1,953.00	3,007.50	80.00	-----	-----	1	40.00	1	40.00

<sup>1</sup> Based on 133 families reporting this item.<sup>2</sup> Based on 27 families reporting this item.

*Furniture and house furnishings.*—This classification includes living room, dining room, and bedroom suites, as well as separate pieces, rugs, curtains, bedding, dishes, lamps, etc., but excludes all other things specified in the table. There were 137 families buying furniture and furnishings on the installment plan during the year, as shown in Table 4. The average cost price of the several articles of furniture as reported by 133 of the 137 families was \$250.53. The average income of these families was \$2,279.77, and the average expenditures for all items was \$2,469.01. During the current year \$95.04 was the average amount paid by the 137 families. Of the 137 families, 59 brought over a debt from the preceding year. In the preceding year these 59 families paid \$131.79 on the furniture they continued to pay on in the current year. At the close of the year 102 families owed an average of \$129.73. Eighty-one of these 137 families, as shown by Table 5, confined their installment buying to furniture and furnishings only, while 56 of these families purchased other commodities in addition to furniture. It will be noted in Table 4 that the average deficit for 137 families was \$189.24. The average deficit for the 81 families that bought furniture and furnishings only, was \$156.43.

*Clothing.*—In this study 28 families reported payments for clothing on installments. The average price of installment clothing bought by 27 of the 28 families was \$84.68, and \$50.40 was the average amount paid during the year. Clothing only, averaging \$74.67, was purchased



by six families. The specific articles of clothing bought on the partial-payment plan was specified by 12 families and consisted of coats, dresses, and suits.

*Radios.*—Twenty-five families in all made payments on radios during the year on the installment plan. The average income of these families was \$2,754.70 and the average expenditure was \$3,024.40. The average price of this article was \$188.87, \$78.94 of which was paid during the year. Ten families purchased a radio only, while 15 purchased additional commodities.

*Automobiles.*—In this study 21 families were paying installments on automobiles. The average income of these families was \$2,813.57. The average price of the automobile was \$584.14. The average amount paid during the year was \$265.04. Five families made payments on these automobiles in preceding years, which payments averaged \$342.80, and 14 families had an average amount of \$340.15 due at the end of the current year. Eight of the twenty-one families purchasing were making payments on no other articles than the automobile.

*Musical instruments.*—This classification includes pianos, phonographs, saxophone, and trumpet. Twelve families were making installment payments on pianos, 7 on phonographs and 1 on a saxophone and a trumpet. Seven of the pianos, 5 of the phonographs, and the trumpet were purchased previous to the schedule year. The pianos ranged in price from \$100 to \$612.50 and averaged \$388.38 for the 12 families. The price of the phonographs ranged from \$102 to \$265 and averaged \$166.57 for the 7 families. Five of the families buying pianos and 3 buying phonographs were making no other installment payments during the year.

*Stoves.*—Sixteen families were making payments on stoves, which payments averaged \$39.75. The price of these stoves ranged from \$15 to \$145 and averaged \$69.33 for the 16 families. Five of these stoves were purchased previous to the schedule year but the payments were continued on them.

*Washing machines.*—Fifteen families were paying for this household convenience. The price of these machines ranged from \$46 to \$193 and averaged \$125.60 for the 15 families.

*Sewing machines.*—Twelve families were making installment payments on sewing machines, which ranged in price from \$29 to \$200. The average payment per family in the current year was \$43.92.

*Vacuum cleaners.*—Twelve families were making payments on vacuum cleaners, ranging in price from \$36.50 to \$77 and averaging \$57.29 for the 12 families. The average payment in the year was \$42.58.

*Miscellaneous items.*—Four families were buying coal on the installment plan, 2 were buying books, automobile tires, jewelry, electric refrigerators, awnings, and furnaces, respectively, while 1 family bought a radio battery eliminator, 1 a cemetery lot, and 1 water spouting.

The outstanding debt per family on automobiles at the end of the year was \$340.15, which was more than on any of the other commodities. On electric refrigerators the amount due at the end of the year averaged \$205.50; on furniture, \$129.73; and on radios, \$118.96.

Summing up all the figures there results the following:

Families canvassed.....	506
Families paying on installments:	
Number.....	210
Per cent of all families.....	41.5
Average cost price of articles paid on per family during year.....	\$322.01
Average amount of installment payments per family during current year.....	\$132.74
Families owing installments at end of year:	
Number.....	162
Average amount owing per family.....	\$164.93
Average cost price of articles paid on during current year were it spread over all 506 families.....	\$131.09
Average amount of installment paid during current year were it spread over all 506 families.....	\$55.09
Average amount owing at end of year were it spread over all 506 families.....	\$52.80

The last three items are, of course, hypothetical but are computed to show the spread of installment buying. The families as a whole, including noninstallment buyers with installment buyers, were making payments on articles originally costing an average of \$131.09 per family. The average family was making an annual payment of \$55.09 on installment-bought articles, and the average family had a debt owing on installment articles at the end of the year of \$52.80. It is probable that the story for these families canvassed is about that of the usual American city family.

The average expenditure per family for all purposes by the 506 families was \$2,593.21 and the average installment expenditure spread over all these families was \$55.09, or 2.1 per cent of the total expenditure.

Table 5 distributes the 210 installment-paying families according to the number of kinds of articles on which they were making payments. It was not possible to get a satisfactory enumeration of each item or piece of furniture and furnishings and this item, therefore, covers one or more articles of that class. Only one kind of article was being paid on by 136 families, 59 families were paying on 2 kinds, 10 families on 3 kinds, 3 families on 4 kinds, and 2 families on 5 kinds.

TABLE 5.—FAMILIES MAKING INSTALLMENT PAYMENTS, BY NUMBER OF ARTICLES PAID ON

*Families paying on one commodity only*

Articles on which payments were made during year	Number of families	Average income	Average expenditure	Average cost price of articles	Average paid during current year	Owing at end of year	
						Families owing	Average amount
Furniture and furnishings	81	\$2,220.78	\$2,377.21	<sup>1</sup> \$260.18	\$91.14	<sup>2</sup> 60	<sup>3</sup> \$137.38
Radio	10	2,730.01	2,973.40	208.70	100.40	9	107.89
Automobile	8	2,885.12	3,212.37	548.13	193.13	6	333.33
Clothing	6	1,634.11	1,823.66	74.67	42.17	4	48.75
Vacuum cleaner	6	2,641.32	3,220.32	59.33	43.75	1	24.00
Piano	5	2,033.90	2,177.44	421.50	82.10	5	259.46
Washing machine	5	2,908.50	2,905.82	97.75	63.25	4	36.88
Stove	3	3,082.62	3,190.95	85.67	70.88	2	22.18
Phonograph	3	2,428.89	2,458.89	168.33	81.00	2	36.50
Sewing machine	3	2,838.07	2,999.07	131.67	68.33	2	72.50
Furnace	2	2,284.00	2,544.00	332.50	120.75	2	211.75
Coal	2	2,653.50	2,807.00	106.63	106.63		
Electric refrigerator	1	4,927.00	4,157.00	215.00	10.00	1	205.00
Radio battery eliminator	1	2,905.00	3,105.00	60.00	60.00		
Average	136	2,377.65	2,555.72	244.31	90.88	98	140.40

<sup>1</sup> Average based on 79 families reporting.

<sup>2</sup> Not including one family who purchased furniture costing \$220 and after paying \$105 lost it through nonpayment.

<sup>3</sup> Not including one family who purchased a \$475 automobile and after paying \$250 lost it through nonpayment.

# INSTALLMENT BUYING BY FEDERAL EMPLOYEES

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TABLE 5.—FAMILIES MAKING INSTALLMENT PAYMENTS, BY NUMBER OF ARTICLES PAID ON—Continued

*Families paying on two commodities*

Articles on which payments were made during year	Number of families	Average income	Average expenditure	Article bought	Average		Owing at end of year	
					Cost price of article	Paid during current year	Families owing	Average amount
Furniture and clothing.....	8	\$1,860.12	\$2,134.30	Furniture.....	\$153.83	\$103.50	6	\$92.33
				Clothing.....	70.79	45.56	6	42.67
				Total.....	224.62	149.06		135.00
Furniture and stove.....	8	2,295.75	2,573.41	Furniture.....	155.54	85.13	6	69.89
				Stove.....	61.47	32.16	4	21.38
				Total.....	217.01	117.29		91.27
Furniture and radio.....	5	2,855.18	2,920.78	Furniture.....	326.70	107.00	5	200.10
				Radio.....	194.20	58.80	4	160.50
				Total.....	520.90	165.80		360.60
Furniture and automobile.	4	2,026.88	2,470.62	Furniture.....	303.15	111.65	3	80.67
				Automobile.....	540.75	252.81	3	327.59
				Total.....	843.90	364.46		408.26
Furniture and washing machine.	4	2,266.43	2,392.68	Furniture.....	254.62	99.37	2	103.50
				Washing machine.	160.00	51.41	3	106.48
				Total.....	414.62	150.78		209.98
Furniture and sewing machine.	3	2,454.50	2,797.24	Furniture.....	329.52	96.42	3	205.43
				Sewing machine.	129.33	58.33	2	76.50
				Total.....	458.85	154.75		281.93
Furniture and vacuum cleaner.	3	2,335.00	2,671.50	Furniture.....	296.67	147.67	3	69.33
				Vacuum cleaner.	59.50	34.00	2	38.25
				Total.....	356.17	181.67		107.58
Furniture and piano.....	3	2,720.30	2,745.30	Furniture.....	363.48	187.17	3	176.32
				Piano.....	196.67	85.33	3	106.33
				Total.....	560.15	272.50		282.65
Furniture and phonograph	3	2,454.40	2,662.73	Furniture.....	162.62	61.00	1	8.86
				Phonograph.....	165.67	51.33	2	106.50
				Total.....	328.29	112.33		115.36
Furniture and diamond ring.	1	1,886.25	2,243.25	Furniture.....	113.75	45.75	1	52.50
				Diamond ring.....	310.00	92.00	1	218.00
				Total.....	423.75	137.75		270.50
Furniture and watch.....	1	2,110.00	2,195.62	Furniture.....	31.70	31.70		
				Watch.....	8.98	2.70	1	6.28
				Total.....	40.68	34.40		6.28
Furniture and coal.....	1	2,157.33	2,270.33	Furniture.....	43.50	10.00	1	33.50
				Coal.....	66.00	40.00	1	26.00
				Total.....	109.50	50.00		59.50
Automobile and washing machine.	2	3,077.18	2,937.01	Automobile.....	547.50	370.18	2	177.32
				Washing machine.	176.50	141.50	1	70.00
				Total.....	724.00	511.68		247.32
Automobile and sewing machine.	1	2,160.00	2,120.00	Automobile.....	669.00	227.28	1	441.72
				Sewing machine.	130.00	25.00	1	105.00
				Total.....	799.00	252.28		546.72

<sup>4</sup> Average based on 6 families reporting.

<sup>5</sup> Not including 1 family not reporting.

<sup>6</sup> Average based on 7 families reporting.



TABLE 5.—FAMILIES MAKING INSTALLMENT PAYMENTS, BY NUMBER OF ARTICLES PAID ON—Continued

*Families paying on two commodities—Continued*

Articles on which payments were made during year	Number of families	Average income	Average expenditure	Article bought	Average		Owing at end of year	
					Cost price of article	Paid during current year	Families owing	Average amount
Clothing and washing machine.	1	\$3, 115. 00	\$3, 185. 00	Clothing.....	\$110. 00	\$40. 00	1	\$70. 00
				Washing machine.	71. 25	71. 25	-----	-----
				Total.....	181. 25	111. 25	-----	70. 00
Clothing and electric refrigerator.	1	2, 826. 50	2, 871. 50	Clothing.....	75. 00	30. 00	1	45. 00
				Electric refrigerator.	327. 00	121. 00	-----	206. 00
				Total.....	402. 00	151. 00	-----	251. 00
Clothing and books.....	1	1, 973. 00	2, 077. 95	Clothing.....	29. 95	16. 00	1	13. 95
				Books.....	79. 50	20. 00	-----	59. 50
				Total.....	109. 45	36. 00	-----	73. 45
Clothing and water spouting.	1	1, 953. 00	3, 007. 50	Clothing.....	60. 00	40. 00	1	20. 00
				Water spouting.	80. 00	40. 00	-----	40. 00
				Total.....	140. 00	80. 00	-----	60. 00
Radio and sewing machine	1	3, 195. 00	3, 195. 00	Radio.....	149. 00	105. 00	1	44. 00
				Sewing machine.	76. 00	36. 00	-----	12. 00
				Total.....	225. 00	141. 00	-----	56. 00
Radio and washing machine.	1	2, 465. 00	2, 488. 48	Radio.....	199. 00	90. 00	1	109. 00
				Washing machine.	175. 00	175. 00	-----	-----
				Total.....	374. 00	265. 00	-----	109. 00
Radio and vacuum cleaner	1	2, 635. 00	3, 072. 00	Radio.....	150. 00	50. 00	-----	-----
				Vacuum cleaner.	36. 50	30. 00	-----	-----
				Total.....	186. 50	80. 00	-----	-----
Radio and stove.....	1	2, 624. 00	2, 624. 00	Radio.....	79. 00	79. 00	1	-----
				Stove.....	20. 00	15. 60	-----	4. 40
				Total.....	99. 00	94. 60	-----	4. 40
Saxophone and trumpet....	1	2, 429. 50	2, 694. 50	Saxophone.....	100. 00	77. 00	1	23. 00
				Trumpet.....	100. 00	44. 00	-----	-----
				Total.....	200. 00	121. 00	-----	23. 00
Piano and stove.....	1	1, 630. 00	2, 147. 00	Piano.....	500. 00	120. 00	1	140. 00
				Stove.....	87. 00	48. 00	-----	7. 00
				Total.....	587. 00	168. 00	-----	147. 00
Phonograph and stove....	1	2, 510. 00	2, 445. 00	Phonograph.....	164. 00	146. 00	-----	-----
				Stove.....	74. 50	74. 50	-----	-----
				Total.....	238. 50	220. 50	-----	-----
Washing machine and books.	1	2, 727. 61	2, 702. 61	Washing machine.	110. 00	100. 00	1	-----
				Books.....	69. 90	15. 00	-----	54. 90
				Total.....	179. 90	115. 00	-----	54. 90
Average.....	59	2, 358. 31	2, 568. 86	-----	379. 77	173. 99	50	179. 77

*Families paying on three commodities*

Furniture, clothing, and sewing machine.	3	\$2, 144. 33	\$2, 209. 56	Furniture.....	\$267. 15	\$113. 33	2	\$133. 20
				Clothing.....	93. 89	48. 67	3	45. 22
				Sewing machine.	73. 00	26. 33	2	70. 00
				Total.....	434. 04	188. 33	-----	248. 42



TABLE 5.—FAMILIES MAKING INSTALLMENT PAYMENTS, BY NUMBER OF ARTICLES PAID ON—Continued

*Families paying on three commodities—Continued*

Articles on which payments were made during year	Number of families	Average income	Average expenditure	Article bought	Average		Owing at end of year	
					Cost price of article	Paid during current year	Families owing	Average amount
Furniture, clothing, and radio.	1	\$1,583.00	\$2,056.00	Furniture.....	\$260.50	\$82.50	1	\$178.00
				Clothing.....	111.50	15.00		37.00
				Radio.....	76.00	29.00		47.00
				Total.....	448.00	126.50		262.00
Furniture, clothing, and awnings.	1	2,419.00	2,845.65	Furniture.....	200.00	45.00	1	35.00
				Clothing.....	70.00	60.00		10.00
				Awnings.....	45.00	45.00		
				Total.....	315.00	150.00		45.00
Furniture, clothing, and automobile tires.	1	2,853.00	2,910.00	Furniture.....	122.83	89.45	1	26.98
				Clothing.....	36.80	36.80		
				Automobile tires.....	33.61	33.61		
				Total.....	193.24	159.86		26.98
Furniture, automobile, and stove.	1	5,112.00	5,112.00	Furniture.....	285.00	180.00	1	87.00
				Automobile.....	900.00	260.00		
				Stove.....	131.00	21.00		110.00
				Total.....	1,316.00	461.00		197.00
Clothing, automobile, and radio.	1	2,168.65	3,040.65	Clothing.....	150.00	120.00	1	30.00
				Automobile.....	225.00	225.00		
				Radio.....	200.00	40.00		
				Total.....	575.00	385.00		30.00
Clothing, automobile, and piano.	1	2,766.00	3,046.00	Clothing.....	250.00	160.00	1	90.00
				Automobile.....	475.00	152.00		323.00
				Piano.....	500.00	165.00		250.00
				Total.....	1,225.00	477.00		663.00
Automobile, radio, and vacuum cleaner.	1	3,353.50	3,943.50	Automobile.....	850.00	560.00		
				Radio.....	186.00	105.00		
				Vacuum cleaner.....	55.00	55.00		
				Total.....	1,091.00	720.00		
Average.....	10	2,668.82	2,958.25		646.54	304.44	9	196.23

*Families paying on four commodities*

Furniture, clothing, stove, and coal.	1	\$1,530.00	\$1,860.00	Furniture.....	\$17.00	\$17.00	1	
				Clothing.....	16.00	10.00		\$6.00
				Stove.....	48.00	7.00		
				Coal.....	41.25	36.25		5.00
				Total.....	122.25	70.25		11.00
Furniture, automobile, radio, and cemetery lot.	1	3,132.00	4,087.00	Furniture.....	549.00	115.00	1	365.00
				Automobile.....	1,080.00	420.00		660.00
				Radio.....	300.00	50.00		250.00
				Cemetery lot.....	400.00	175.00		225.00
				Total.....	2,329.00	760.00		1,500.00
Furniture, piano, washing machine, and awnings.	1	2,506.89	2,376.89	Furniture.....	10.00	10.00	1	
				Piano.....	395.00	120.00		105.00
				Washing machine.....	46.00	46.00		
				Awnings.....	55.00	28.50		
				Total.....	506.00	204.50		105.00
Average.....	3	2,389.63	2,774.63		985.75	344.92	3	538.67

TABLE 5.—FAMILIES MAKING INSTALLMENT PAYMENTS, BY NUMBER OF ARTICLES PAID ON—Continued

*Families paying on five commodities*

Articles on which payments were made during year	Number of families	Average income	Average expenditure	Article bought	Average		Owing at end of year	
					Cost price of article	Paid during current year	Families owing	Average amount
Furniture, clothing, radio, sewing machine, and vacuum cleaner.	1	\$3,084.50	\$3,084.50	Furniture.....	\$225.00	\$180.00	1	-----
				Clothing.....	152.00	120.00		-----
				Radio.....	175.15	77.50		\$97.65
				Sewing machine.....	87.50	7.00		80.50
				Vacuum cleaner.....	61.50	61.50		-----
				Total.....	701.15	446.00		178.15
Furniture, automobile, radio, piano, and automobile tires.	1	3,050.00	3,681.00	Furniture.....	617.50	127.00	1	160.50
				Automobile.....	425.00	425.00		-----
				Radio.....	149.50	50.00		99.50
				Piano.....	568.00	80.00		120.00
				Automobile tires.....	66.00	43.75		22.25
				Total.....	1,826.00	725.75		402.25
Average.....	2	3,067.25	3,382.75	-----	1,263.58	585.88	2	290.20
Grand average, 210 families.	210	2,392.82	2,589.58	-----	322.01	132.74	162	164.93

**Average Construction Cost of Dwellings in Principal Cities of the United States**

ACCORDING to the estimate of the Bureau of the Census, there are 85 cities in the United States having a population of 100,000 or over. Of these, 14 have a population of over 500,000; 22 of over 200,000 but less than 500,000, and 49 of over 100,000 but less than 200,000.

In the present article are shown the number of families provided for and the average cost per family accommodated of the different kinds of dwellings for which permits were issued during the first six months of 1929 in those 85 cities. The costs shown are as stated by the builder on applying for his permit to build. They are limited to construction of dwellings in the corporate limits of the cities. No land costs are included. The figures refer to construction costs only.

Table 1 shows the number of families provided for and the average cost per family of the different kinds of dwellings for which permits were issued during the first half of 1929, by population group.

TABLE 1.—AVERAGE COST OF DWELLING ACCOMMODATIONS PER FAMILY IN CITIES OF 100,000 POPULATION OR OVER, BY KIND OF DWELLING AND BY POPULATION GROUP, FIRST HALF OF 1929

Population group	1-family dwellings		2-family dwellings		Multi-family dwellings		All classes of dwellings	
	Number of families provided for	Average cost per family	Number of families provided for	Average cost per family	Number of families provided for	Average cost per family	Number of families provided for	Average cost per family
100,000 to 200,000.....	12,920	\$4,578	2,747	\$3,513	6,998	\$3,270	22,665	\$4,045
200,000 to 500,000.....	9,138	4,617	2,664	3,042	7,828	2,972	19,630	3,747
Over 500,000.....	21,262	5,221	8,903	4,445	69,606	4,740	99,771	4,816
Total.....	43,320	4,902	14,314	4,005	84,432	4,454	142,066	4,546

In the 85 cities having a population of 100,000 or over dwelling places were provided for 142,066 families at an average cost per family of \$4,546. One-family dwellings provided for 43,320 families at an average expenditure of \$4,902 per family, while in apartment houses accommodations were provided for 84,432 families at a cost of \$4,454 per family. The 14,314 family units provided in 2-family dwellings averaged \$4,005 per family.

In the 14 cities having a population of 500,000 and over 99,771 families were provided for. Of this number, 69,606, or 69.8 per cent, were provided for in apartment houses at a cost of \$4,740 per family. One-family dwellings housed 21.3 per cent and 2-family dwellings 8.9 per cent of the families provided for in this population group.

In the 22 cities having a population of over 200,000 but less than 500,000 the largest number of families provided for were housed in 1-family dwellings—46.6 per cent of the total, as compared with 13.6 per cent in 2-family dwellings and 39.9 per cent in apartment houses.

In the 49 cities having a population of over 100,000 but under 200,000, 1-family dwellings provided for 57.0 per cent, 2-family dwellings for 12.1 per cent, and apartment houses for 30.9 per cent of the total number of families provided for during the first half of 1929.

It is seen that in each class of dwelling the most expensive were erected in the 14 cities having a population of over 500,000, followed, except in the case of the 1-family dwellings, by the cities having a population of from 100,000 to 200,000. The average cost per family of each class of dwelling, except those for one family, in the 22 cities having a population of from 200,000 to 500,000 was lower than in the group having a smaller population.

In the 14 cities of the United States having a population of 500,000 or over the average expenditure for 1-family dwellings ranged from \$3,958 in St. Louis to \$126,667 in the Borough of Manhattan. While the average expenditure for 1-family dwellings was higher in the Boroughs of Manhattan and the Bronx, Washington showed a higher average expenditure than any other city considered as an entity. The average cost of the 863 single-family dwellings for which permits were issued in Washington during the first half of 1929 was \$7,489. In Chicago the average cost of the single-family dwellings was \$6,771, and in New York \$6,141.



Table 2 shows the average cost of each kind of dwelling for each of the 14 cities having a population of 500,000 or over, the cities being arranged in ascending order of cost per dwelling.

TABLE 2.—AVERAGE COST OF DWELLING ACCOMMODATIONS PER FAMILY IN CITIES OF 500,000 POPULATION OR OVER, BY KIND OF DWELLING AND BY CITIES, FIRST HALF OF 1929

City	Number of families provided for	Average cost per family	City	Number of families provided for	Average cost per family
<i>One-family dwellings</i>			<i>Multi-family dwellings<sup>1</sup></i>		
St. Louis	732	\$3,958	St. Louis	1,933	\$2,141
Los Angeles	2,958	4,020	Los Angeles	5,087	2,228
Baltimore	1,655	4,160	Detroit	1,938	2,839
Philadelphia	2,932	4,185	Milwaukee	1,320	2,905
San Francisco	742	4,817	San Francisco	1,223	3,071
Borough of Richmond <sup>1</sup>	476	4,928	Borough of Queens <sup>1</sup>	7,294	3,631
Buffalo	168	5,185	Pittsburgh	485	3,674
Detroit	3,555	5,264	Borough of Richmond <sup>1</sup>	81	3,815
Milwaukee	554	5,478	Chicago	10,864	3,904
Borough of Queens <sup>1</sup>	2,379	5,649	Boston	1,885	3,973
Boston	289	5,686	Borough of the Bronx <sup>1</sup>	11,598	4,238
Pittsburgh	659	6,069	Borough of Brooklyn <sup>1</sup>	7,339	4,332
Cleveland	572	6,098	Baltimore	124	4,435
New York (all boroughs)	3,991	6,141	Buffalo	214	4,508
Chicago	1,592	6,771	Philadelphia	1,396	4,999
Borough of Brooklyn <sup>1</sup>	779	6,884	Cleveland	496	5,280
Washington	863	7,489	Washington	1,090	5,584
Borough of the Bronx <sup>1</sup>	354	8,424	New York (all boroughs)	41,551	5,596
Borough of Manhattan <sup>1</sup>	3	126,667	Borough of Manhattan <sup>1</sup>	15,239	8,188
Total (14 cities)	21,262	5,221	Total (14 cities)	69,606	4,740
<i>Two-family dwellings<sup>2</sup></i>			<i>All classes of dwellings</i>		
Buffalo	539	2,294	St. Louis	3,049	2,738
Washington	8	2,500	Los Angeles	9,179	2,965
St. Louis	384	3,421	Buffalo	921	3,336
Borough of Richmond <sup>1</sup>	190	3,491	Milwaukee	2,398	3,751
Baltimore	2	3,500	San Francisco	2,005	3,779
Los Angeles	1,134	3,526	Baltimore	1,781	4,179
Detroit	1,845	3,646	Borough of Queens <sup>1</sup>	10,670	4,205
Milwaukee	524	4,055	Detroit	7,338	4,217
Pittsburgh	106	4,329	Boston	2,661	4,241
Boston	487	4,421	Chicago	13,215	4,398
San Francisco	130	4,519	Borough of the Bronx <sup>1</sup>	12,342	4,414
Borough of Queens <sup>1</sup>	997	4,964	Borough of Richmond <sup>1</sup>	747	4,442
New York (all boroughs)	2,609	5,216	Philadelphia	4,454	4,558
Cleveland	250	5,452	Borough of Brooklyn <sup>1</sup>	9,148	4,677
Borough of Brooklyn <sup>1</sup>	1,030	5,469	Pittsburgh	1,250	4,992
Borough of the Bronx <sup>1</sup>	390	6,005	New York (all boroughs)	48,151	5,620
Chicago	759	6,495	Cleveland	1,318	5,668
Philadelphia	126	8,334	Washington	1,961	6,410
Borough of Manhattan <sup>1</sup>	2	10,000	Borough of Manhattan <sup>1</sup>	15,244	8,211
Total (14 cities)	8,903	4,445	Total (14 cities)	99,771	4,816

<sup>1</sup> A borough of "Greater New York."

<sup>2</sup> Includes 1-family and 2-family dwellings with stores.

<sup>3</sup> Includes multi-family dwellings with stores.

Two-family dwellings ranged in average cost from \$2,294 per family in Buffalo to \$10,000 in the Borough of Manhattan. Most cities built a relatively small proportion of this class of dwellings; exceptions were Buffalo, Los Angeles, and Detroit, in which buildings of this type provided a large percentage of the housing projected during the period covered. In Buffalo over 50 per cent of the new family dwelling units were in 2-family dwellings.

Apartment house costs per family were lower in St. Louis than in any other city and higher in the Borough of Manhattan, the averages in these two localities being \$2,141 and \$8,188, respectively.



In New York City (all boroughs) the average cost of this class of dwelling was \$5,596 per family and in Washington, \$5,584 per family.

Considering all classes of housing in these 14 cities, St. Louis provided cheaper dwelling places than any other city, the average cost per dwelling of the 3,049 families provided for being \$2,738. Except for the Borough of Manhattan, where the average cost per dwelling was \$8,211, Washington erected the most expensive dwelling places. The average cost of the 1,961 dwelling units in the Nation's Capital was \$6,410.

Table 3 shows the average cost of each kind of dwelling for each of the 22 cities having a population of over 200,000 but less than 500,000.

TABLE 3.—AVERAGE COST OF DWELLING ACCOMMODATIONS PER FAMILY IN CITIES HAVING A POPULATION BETWEEN 200,000 AND 500,000, BY KIND OF DWELLING AND BY CITIES, FIRST HALF OF 1929

City	Number of families provided for	Average cost per family	City	Number of families provided for	Average cost per family
<i>One-family dwellings</i>			<i>Multi-family dwellings<sup>1</sup></i>		
Dallas	306	\$2,633	Dallas	250	\$1,560
Birmingham	365	2,719	New Orleans	106	1,784
New Orleans	163	2,787	Birmingham	117	1,897
San Antonio	849	2,905	Atlanta	289	2,156
Seattle	1,019	3,617	Louisville	311	2,256
Toledo	551	4,161	Toledo	293	2,322
Kansas City, Mo.	464	4,236	Indianapolis	241	2,334
Oakland	387	4,275	Denver	488	2,397
Louisville	244	4,549	Kansas City, Mo.	938	2,423
Atlanta	446	4,625	Oakland	604	2,560
St. Paul	229	4,668	San Antonio	140	2,667
Minneapolis	433	4,674	Rochester	45	2,756
Indianapolis	637	4,892	Omaha	75	2,933
Portland, Oreg.	611	4,912	Jersey City	1,105	3,006
Omaha	175	5,203	Minneapolis	455	3,358
Denver	460	5,308	Portland, Oreg.	296	3,505
Jersey City	5	5,476	Seattle	1,045	3,505
Columbus	515	5,650	St. Paul	33	3,600
Rochester	259	5,657	Columbus	298	3,648
Cincinnati	758	7,410	Newark	230	4,509
Newark	80	7,521	Cincinnati	332	5,005
Providence	182	8,316	Providence	137	5,380
Total (22 cities)	9,138	4,617	Total (22 cities)	7,828	2,972
<i>Two-family dwellings<sup>1</sup></i>			<i>All classes of dwellings</i>		
Birmingham	2	1,750	New Orleans	795	2,149
Atlanta	172	1,845	Dallas	786	2,256
Seattle	8	1,900	Birmingham	484	2,516
New Orleans	526	2,026	San Antonio	1,137	2,870
Portland, Oreg.	16	2,259	Kansas City, Mo.	1,429	3,038
Indianapolis	194	2,516	Jersey City	1,230	3,116
Dallas	230	2,521	Oakland	1,008	3,222
Cincinnati	232	2,622	Louisville	950	3,276
Oakland	17	2,759	Atlanta	907	3,311
San Antonio	148	2,863	Toledo	914	3,517
Louisville	395	3,293	Seattle	2,072	3,554
Minneapolis	118	3,438	Denver	996	3,801
Toledo	70	3,450	Indianapolis	1,072	3,887
Denver	48	3,646	Minneapolis	1,006	3,934
Kansas City, Mo.	27	3,833	Portland, Oreg.	923	4,415
Jersey City	120	4,029	Omaha	258	4,539
Columbus	67	4,612	St. Paul	285	4,763
Providence	135	4,890	Columbus	880	4,893
Omaha	8	5,063	Rochester	315	5,231
Rochester	11	5,318	Newark	407	5,429
Newark	97	5,886	Cincinnati	1,322	5,965
St. Paul	23	7,383	Providence	454	6,411
Total (22 cities)	2,664	3,042	Total (22 cities)	19,630	3,747

<sup>1</sup> Includes 1-family and 2-family dwellings with stores.

<sup>2</sup> Includes multi-family dwellings with stores.

Dallas erected the lowest cost 1-family dwellings in the population group 200,000 to 500,000, and Providence the highest. In the former city permits were issued during the first six months of 1929 for 306 single-family houses at the average cost of \$2,633. In the latter city permits were issued for 182 single-family dwellings and their average cost was \$8,316. There was a wide variance in the percentage of families provided for in 1-family houses in this group. In Jersey City less than one-half of 1 per cent of the families provided for during the first half of 1929 were housed in single-family dwellings, while in Rochester over two-thirds of the new family dwelling units were in 1-family dwellings.

The per family cost of 2-family dwellings in these 22 cities was lowest in Birmingham, \$1,750, and highest in St. Paul, \$7,383. The lowest cost per family unit in apartment houses was in Dallas and the highest in Providence. The latter city also had the highest average cost per family for all classes of dwellings. During the first half of 1929 the average cost of all family dwelling units was \$6,411 in Providence and only \$2,149 in New Orleans.

To conserve space figures are not given in this article for each of the 49 cities having a population of from 100,000 to 200,000, but the basic material for the computations was given in the Labor Review for October (p. 121).

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### Results of Arbitration Cases Involving Wages and Hours, 1865 to 1929

THERE is here presented a statement giving the results of all the labor arbitration cases in the United States, involving wages and hours of labor, of which the Bureau of Labor Statistics has record. The primary purpose is to show to what extent the arbitration results have been favorable or unfavorable to labor. This can be done only in a very general way, by showing whether the several awards granted increased or decreased wages, increased or decreased hours of labor, etc. An award resulting, for instance, in a wage increase, or a denial of a wage reduction asked for by the employer, is classed as favorable to the workers. This, of course, is only part of the story, as a wage increase may be less than was justified, or may be combined with other features that negative its ostensible value to the workers. Such a careful analysis is not attempted here, partly because of lack of time but largely because the records of most arbitration cases do not give sufficient information to permit of intimate analysis.

The term arbitration properly includes only disputes submitted to an arbitrator or arbitrators with the agreement of both parties to abide by the result. This interpretation has here been used, with the exception that in the case of official arbitration boards, such as the Railroad Labor Board, some decisions have been included where both parties did not agree to abide by the result. This has been done partly because the records do not always show whether the cases passed upon were actual joint submissions or merely *ex parte*, and partly because in certain cases the decisions of such official bodies, by virtue of their official sanction, usually have a compelling force.

The cases here presented cover the period from 1865 to 1929. For purposes of analysis, if the analysis is to mean anything, it is neces-

sary to treat the period of the war as entirely separate from preceding and succeeding years, the war period being roughly described as extending from 1915 to 1920, inclusive. These were abnormal years in every respect; the cost of living was steadily and at times frantically rising, and the arbitrations of this period were almost entirely concerned not with the question of whether wages should be increased but with the question of the amount of increase. The resulting decisions were, therefore, not representative of the attitude of arbitration tribunals under normal conditions.

The total number of arbitration cases included in this study is 423. This is exclusive of some 2,000 cases decided by various war-time boards. A large number of cases had to be omitted from the study because the available records, while giving the decision in detail, do not furnish the necessary information to determine what changes from previous conditions were made by the arbitrator. Decisions of various so-called adjustment boards, as in the clothing industry, have been omitted, as they deal primarily with the interpretation of existing awards and agreements and not with general changes in hours or wages. Decisions, mostly ex parte, under the investigation of disputes act of Colorado and decisions under the short-lived compulsory arbitration law of Kansas have also been omitted from the main tabulation, but are discussed in a separate section.

A brief summary of the results of the total of 423 cases is given in Table 1, the interpretation of the phrases "in favor of the workers" and "in favor of the employers" being in accordance with the explanation above. The column headed "mixed decisions" refers to those cases where the decisions were partly in favor of one side and partly of the other, as where the contentions of both parties were rejected. For the postwar period the data are given separately for each year.

TABLE 1.—DECISIONS IN LABOR ARBITRATION CASES IN THE UNITED STATES, BY PERIODS

Period and year	In favor of workers		In favor of employers		Mixed decisions		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Pre-war period, 1865 to 1914.....	43	79.6	9	16.7	2	3.7	54	100
War period, 1915 to 1920.....	92	93.9	6	6.1			98	100
Postwar period:								
1921.....	20		42		2		64	
1922.....	17		21		3		41	
1923.....	32		5		1		38	
1924.....	19		3		1		23	
1925.....	20		16		3		39	
1926.....	17		3				20	
1927.....	23		3		1		27	
1928.....	10		1		1		12	
1929.....	6		1				7	
Total.....	164	60.5	95	35.1	12	4.4	271	100
All periods.....	299	70.7	110	26.0	14	3.3	423	100

An examination of Table 1 shows that in the pre-war period, 79.6 per cent of the decisions were in favor of the workers; in the war period, 93.9 per cent in favor of the workers; and in the postwar years,



60.5 per cent in favor of the workers. It is also of interest to note the differing results, by years, in the postwar period. Following the peak of the war "boom" in 1920, there was a serious business depression and a sharp reduction in the cost of living. Thereupon employers demanded wage reductions and in a number of cases these were granted by arbitration awards. Thereafter, with improving business conditions and a cessation in the downward movement of cost of living, there was a decreasing number of requests by employers for wage reductions.

Table 2 gives a more detailed analysis of the arbitration cases covered by this study, the results being classified according to whether they involved wage increases, reduction in hours, denial of employers' request for wage decreases, etc. An examination of this table gives some interesting comparisons.

TABLE 2.—DECISION IN LABOR ARBITRATION CASES IN THE UNITED STATES, BY TYPE OF DECISION

Decision	Pre-war period (1865-1914)		War period (1915-1920)		Postwar period (1921-1929)		All periods	
	Num- ber	Per cent of grand total	Num- ber	Per cent of grand total	Num- ber	Per cent of grand total	Num- ber	Per cent of grand total
In favor of workers:								
Wages increased (hours not involved).....	33	61.1	71	72.4	128	47.2	232	54.8
Wage reduction denied (hours not involved).....					21	7.7	21	5.0
Wages increased, and hours reduced.....	7	13.0	13	13.3	7	2.6	27	6.4
Wages increased, but reduction in hours denied.....	2	3.7	5	5.1	4	1.5	11	2.6
Wages increased, and increase in hours denied.....			3	3.1	1	.4	4	.9
Hours reduced (wages not involved).....					1	.4	1	.2
Increase in hours denied (wages not involved).....					1	.4	1	.2
Hours reduced, but wage increase denied.....	1	1.9			1	.4	2	.5
Total.....	43	79.6	92	93.9	164	60.5	299	70.7
In favor of employers:								
Wages reduced (hours not involved).....	2	3.7			58	21.4	60	14.2
Wage increase denied (hours not involved).....	3	5.6	6	6.1	29	10.7	38	9.0
Wages reduced, but increase in hours denied.....					2	.7	2	.5
Wages reduced, but reduction in hours denied.....					1	.4	1	.2
Hours increased (wages not involved).....					3	1.1	3	.7
Wage increase and reduction in hours, both denied.....	4	7.4			2	.7	6	1.4
Total.....	9	16.7	6	6.1	95	35.1	110	26.0
Mixed:								
Wages increased, but hours increased.....	1	1.9			1	.4	2	.5
Requests of both parties denied.....	1	1.9			11	4.1	12	2.8
Total.....	2	3.7			12	4.4	14	3.3
Grand total.....	54	100.0	98	100.0	271	100.0	423	100.0

### Review of Principal Arbitrations

#### Pre-war Period (1865 to 1914)

THE EARLIEST wage arbitration in the United States of which the bureau has record was that of the iron puddlers of Pittsburgh in 1865. This resulted in a fairly substantial increase in wage rates and paved the way for the peaceable settlement of later disputes.

Including this case, the bureau's records show that during the pre-war period (prior to 1915) there were 28 arbitrations affecting industrial concerns, 4 affecting street railways, and 22 affecting steam railroads. The steam railroad cases arose almost entirely under the

Erdman Act of 1898 and the Newlands Act of 1913. These acts represented the first attempt of the Federal Government to provide machinery for the settlement of labor disputes. In every one of these pre-war railroad arbitrations the decision granted some increase in wages to part or all of the workers concerned. In some instances the increases were very slight; in others, as in the eastern engineers cases of 1912, some employees received increases as high as 52 per cent, although others received no advances at all. In only 4 of the railroad arbitrations was the subject of hours a serious point of controversy and in all of these some reduction in hours was granted.

Of the pre-war industrial arbitrations the anthracite coal case of 1903 was by far the most important. The board in this case was appointed by the President of the United States, after a long and bitter conflict. The decision of the board gave a substantial increase in wage rates, amounting to 10 per cent in the case of contract miners.

Another interesting development of the early pre-war period was the establishment in Massachusetts in 1886 of a State board of conciliation and arbitration. This board had a very successful career both in conciliating disputes and in prevailing upon disputants voluntarily to submit to arbitration. Unfortunately the early reports of the work of this board do not give sufficiently full details of results in individual cases to permit of inclusion in this study.

#### War Period (1915 to 1920)

During the war there was a tremendous growth in the use of arbitration in labor disputes. This represented in part a development of a movement which was already under way before the war. The war itself, however, naturally accelerated this movement. It was everywhere recognized not only that there should be no strikes or lockouts to interrupt war-time production, but also that with the great increase in cost of living, considerable wage increases were essential. Arbitration was the logical way out of the difficulty, especially as the point at issue was almost invariably not whether there should be a wage increase but simply the amount of the increase.

During the war years proper (1917 and 1918) the major industries were necessarily subjected to a considerable measure of Government control, and as a result the wage adjustments were largely under the auspices of various Federal wage adjustment agencies, such as the National War Labor Board and the Shipbuilding Labor Adjustment Board. The following is a list of the Federal war agencies which rendered decisions in labor matters:

Cantonment Adjustment Commission.

Shipbuilding Labor Adjustment Board.

Industrial Relations Division—Emergency Fleet Corporation.

Marine and Dock Industrial Relations Division.

National Adjustment Commission (longshoremen).

New York Harbor Wage Adjustment Board.

President's Mediation Commission.

Administrator of Labor Standards in Army Clothing.

National Harness and Saddlery Adjustment Commission.

Industrial Service Sections of Ordnance, Quartermaster, and Aircraft.

Railroad Administration Board of Railroad Wages and Working Conditions.

Fuel Administration.

Food Administration.

National War Labor Board.

War Labor Policies Board.

These boards rendered some 2,000 decisions of varying importance. Most of these decisions were not true arbitration awards, but some were in the class of arbitration awards proper—as for instance, the cases decided by the National War Labor Board, in which that board had been agreed upon by both parties as final arbitrator.

The awards and decisions of these boards, as already noted, do not have much significance as indicating the normal attitude of arbitrators toward the subject of wages. Practically all decisions granted wage increases, as there was a tacit understanding that wages would be increased at least as much as the increase in cost of living and there was a general increase in cost of living from 1917 to 1920, inclusive.

As regards hours, the decisions and awards of these war-time boards were much more significant, the principle being early accepted by practically all the boards that the basic 8-hour day should be generally granted, but that otherwise, existing conditions should be maintained. As a result, the 8-hour day in both principle and practice made very great strides.

With the close of the war in November, 1918, the Federal agencies gradually withdrew their control over private industry, but the war conditions of high industrial activity, mounting living costs, etc., continued until the beginning of 1921. There resulted a series of labor disputes and labor arbitrations, most of the principal ones culminating in 1920. In that year there were three arbitration cases of outstanding importance—the bituminous coal case, the anthracite coal case, and Decision No. 2 of the United States Railroad Labor Board.

The award in the bituminous coal case granted substantial increases in wages, amounting to 24 cents a ton for tonnage workers, \$1 a day for certain other classes of labor, and 20 per cent for still other classes.

The anthracite case also resulted in wage increases but apparently much less substantial ones than in the bituminous case and much less satisfactory to the miners concerned.

Decision No. 2 of the Railroad Labor Board, rendered in 1920, represented the first major activity of that board. The case affected almost all classes of steam railroad employees and the award of the board granted increases, roughly, of from 5 to 18 cents per hour.

#### Postwar Period (1921 to 1929)

With the general collapse in business in 1921, prices and the cost of living also slumped heavily, and labor disputes assumed an entirely different aspect. Previously, disputes had risen largely on the part of the employees, who desired better wages or decreased hours. Now the demand came from the employers for reduced wages and, to some extent, for increased hours. The employees were, for the most part, on the defensive and the arbitration cases arising at this time were chiefly concerned with the questions of reducing wages and lengthening hours.

Of the 64 arbitration cases of which the bureau has record for 1921, 42 were decided in favor of the employers, and in 1922, 21 out of 41 were in favor of the employers. Thereafter the pendulum swung the other way, and the great majority of the decisions were in favor of the workers.



Outstanding cases of wage decreases following the war were various decisions of the Railroad Labor Board, rendered in 1921 and 1922, which took away a considerable part of the wage increases granted in the general wage decision of 1920.

Street-railway cases have been very frequent in the postwar years, most of the union agreements providing for arbitration as a last resort. Arbitrations have also been very frequent in the printing trades, in the electrical trades, and in the men's garment industry, the unions and employees concerned having adopted the principle of arbitration on a fairly general scale.

The most significant development of the postwar period, in the field of labor arbitration, was probably the passage of the railroad labor act of 1926. This act abolished the old Railroad Labor Board and created a new machinery of mediation and arbitration. Under this act there have been 41 arbitrations involving wages and hours. In addition, three cases involving wages and hours have been referred by the President of the United States to special boards set up by him for the purpose, as provided in the act of 1926. In one of the three cases referred to presidential boards the employees were given a wage increase, while in another a wage increase, higher than that previously offered by the railroad, was denied. The decisions of these presidential boards are theoretically not binding, but the sanction back of them is so great that they are not likely to be disregarded. In addition, as the act of 1926 was agreed upon in advance by all the unions as well as the railroads, a certain moral obligation rests upon all disputants to accept the decisions arrived at through the machinery of the act.

#### Decisions Under the Industrial Disputes Act of Colorado, 1915

UNDER a law enacted in 1915, known as the Colorado industrial commission act, "employers and employees shall give to the industrial commission and the one to the other at least 30 days' prior written notice of an intended change affecting conditions of employment or with respect to wages or hours," and it is unlawful for an employer to declare a lockout or for employees to go on strike before the commission terminates jurisdiction, even if the commission fails to file an opinion within the 30-day period.

The industrial commission has no compulsory powers and its decision is not binding unless both parties to the dispute have previously selected the commission as arbitrator.

The available reports of the commission are not sufficiently detailed to permit of a tabulation of the results of all its awards and decisions. An analysis of the awards and decisions up to December 1, 1924, however, was made by two students of the subject and published in the *Journal of Political Economy* for October, 1927. The following statement shows the disposition of 1,042 cases handled by the commission, as reported in the article mentioned.

	Cases
Award or settlement in favor of workers.....	221
Award or settlement in favor of employers.....	190
Mutual agreement (including cases arbitrated).....	334
No record of outcome.....	297

## Kansas Court of Industrial Relations, 1920 to 1925

THE Kansas Court of Industrial Relations was created in the special session of the Kansas Legislature for 1920. This law required that all disputes in industries affected by a public interest be referred to the industrial court for arbitration and absolutely prohibited strikes and lockouts in such industries. On April 13, 1925, the Supreme Court of the United States delivered an opinion declaring unconstitutional the "compulsory arbitration" features of the law.

The reports of the Kansas Court of Industrial Relations show that 55 cases had been formally considered by the court to January 1, 1924. Twenty-seven of these cases involved wages and hours. In 5 of these cases an agreement was reached out of court. The remaining 22 cases were disposed of as follows:

	Cases
Increase of wages granted.....	14
Increase of wages refused.....	2
Decrease of wages granted.....	3
Hours decreased.....	3

## INDUSTRIAL AND LABOR CONDITIONS

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### Reduction of Labor Cost in the Manufacture of Artificial Cooling Systems

**T**HE development of the apparatus used for cooling theaters and other public buildings is an illustration of the manner in which labor saving and labor time cost reduction is progressing in this country.

As formerly made, the cooling machine or apparatus consisted of 28 separate parts in the fitting of which 44 machine operations were necessary. The new design permits the molding to be done in two casts instead of 28 and the machining of the two halves in one set-up, thus combining the 44 machine operations into one.

The new design also reduces the number of parts in the labyrinth from 216 to 22, according to an article in the October 3, 1929, issue of *Iron Age*. The time for machining and assembling the parts has been reduced from three or four weeks to three 8-hour days.

This tendency to combine what were formerly separate parts into one casting is but one of the many methods by which production time and costs are being lowered in almost every branch of industry. To say that the new industries are absorbing the labor displaced by changes in the older industries is therefore rather risky, in view of the fact that it is these very new industries themselves that are making the greatest strides in time and labor saving methods.

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### The Coming Census of Manufactures

**A** STATEMENT issued by the Department of Commerce relative to the census of manufactures, which will be made early in 1930, presents several items of interest.

For the first time inquiry will be made as to the number of days that constitute the normal working week of the plant. This will show the number of employees on a 6-day basis, a 5½-day basis, a 5-day basis, etc. This, at the present time, is a matter on which full information is desired. Inquiry will be made as to the number of shifts per day, the total hours per week, and the number of wage earners and of salary workers. The figures as to the number of persons employed each month will show the seasonal variation.

Also, for the first time an inquiry will be made as to the migration of industry. The moving of a plant means a change in the demand for labor and has its effect on other industries. The coming census will furnish definite information on this subject.

The number of women employed in the manufacturing industries will be determined. In 1909, 20.6 per cent of the wage earners in factories were women; and in 1919, women constituted 20.1 per cent of the wage earners in factories. Figures are not available for later years. The new census will disclose the facts on this subject.

The growing use of power will also be brought out.



## Age Distribution of Workers in a Small Group of Establishments

INTEREST in the older worker in industry led to an effort to bring together such statistics as are available showing the distribution of workers according to age in a group of industrial establishments. The sample presented is small, but it comprises a record for workers in widely different types of work, such as automobile, cotton and silk goods manufacture, and sugar refining.

In analyzing the statistics presented it must be kept in mind that the figures are of different dates. The exact date of the Ford computation is not given, but it is said to be "recent"; that of Cheney Bros. was made public in 1926;<sup>4</sup> the figures for the California & Hawaiian Sugar Refining Corporation are as of October 1, 1927; while the data for 2,349 woman cotton-mill workers employed in nine mills of the North and South (constituting 41.2 per cent of the labor force) were collected by personal interviews in 1922. Moreover, some totals include the entire force, others factory workers only. Other limiting factors are the relative length of time the establishments have been in operation and the nature of the work performed in each as it affects employment of men and women of various ages.

On the basis of the total number of employees classified by age by 10-year spans, the percentages of total workers in each class were computed. These percentages and a similar distribution for the total population of the United States over 15 years<sup>b</sup> old in 1920 form the basis of the following summary table.

TABLE 1.—AGE DISTRIBUTION OF EMPLOYEES OF SPECIFIED ESTABLISHMENTS AND OF TOTAL POPULATION OVER 15 YEARS OF AGE

Age group	Per cent each age group forms of total					
	Popula- tion, aged 15 and over <sup>1</sup>	Women in cotton mills <sup>2</sup>		Ford Motor Co. (Detroit area) <sup>3</sup>	Cheney Bros. <sup>4</sup>	California & Hawaiian Sugar Refining Corpora- tion <sup>5</sup>
		North	South			
Under 30 years of age.....	38.7	60.5	64.1	32.1	40.0	40.6
30 and under 40 years.....	22.0	17.7	19.5	37.8	28.0	35.2
40 and under 50 years.....	16.8	14.1	12.5	22.8	17.0	16.5
50 and under 60 years.....	11.5	5.8	2.8	6.5	10.0	5.2
60 and under 70 years.....	7.0	1.9	1.1	.8	4.0	2.5
70 years and over.....	4.0			(6)	(7)	
Cumulative percentages						
30 years and over.....	61.3	39.5	35.9	67.9	59.0	59.4
40 years and over.....	39.3	21.8	16.4	30.1	31.0	24.2
50 years and over.....	22.5	7.7	3.9	7.3	14.0	7.7
60 years and over.....	11.0	1.9	1.1	.8	4.0	2.5
70 years and over.....	4.0			(6)	(7)	

<sup>1</sup> Census of 1920, Vol. II, pp. 154, 155. Distribution based on total population above 15 years of age. Occupation census could not be used, as age groups have too wide a range; however, for those identical age groups that are shown, the relationship is close.

<sup>2</sup> United States Women's Bureau Bul. No. 52, p. 26, covering 9 mills in North and 9 in South.

<sup>3</sup> Labor Review, August, 1929, p. 64.

<sup>4</sup> National Industrial Conference Board. Industrial Relations Activities at Cheney Bros., p. 4.

<sup>5</sup> Stanford University. The California & Hawaiian Sugar Refining Corporation, by Boris Emmet, p. 87.

<sup>6</sup> Less than one-tenth of 1 per cent.

<sup>7</sup> 1 per cent, classed as "All other ages" may include some employees over 70 as well as some under 16, but the allocation is not shown separately.

\* See Labor Review, March, 1927, p. 25.

<sup>b</sup> Age 15 is as close an approximation as is available in the census figures of the beginners' age in employment.

Examination of the figures shows a distinct tendency on the part of the cotton-mill proprietors of both North and South to employ a large proportion of young workers. In the northern mills, 60.5 per cent of the workers interviewed were under 30 years of age and in those of the South 64.1 per cent, as compared with 38.7 per cent of the total population 15 years old and over. These figures for the cotton industry are in sharp contrast with those for the Cheney plant (40 per cent) and the California & Hawaiian Sugar Refining Corporation (40.6 per cent), which approximate the population figure, and especially with that of the man-employing automobile industry, as represented by the Ford Motor Co. (32.1 per cent).

It is seen that the largest group (37.8 per cent) of the Ford workers falls between the ages of 30 and 40 years, while the sugar company has 35.2 per cent in this group and the Cheney silk mills 28 per cent. Less than 20 per cent of the cotton-mill workers were in this group, and only 22 per cent of the population.

Passing to the next classification, that of workers between 40 and 50 years, the Ford company still leads, while the distribution of the employees of Cheney Bros. and the sugar company closely approaches that of the general population. The cotton industry again falls behind.

In the age group 50 and under 60 years, only the silk mill approaches the population figure, while the others lag noticeably behind. In the next higher group this same establishment again leads, although falling below the general population, while the per cent of workers in the Ford plant who are in the age group 60 and under 70 years, is lower than that of the cotton mills.

The disadvantageous position of the older workers in these particular establishments is strikingly brought out in the cumulative section of the above table. Even Cheney Bros. with the best showing of older workers had only 14.0 per cent of its workers in the age group 50 years old and over, as compared with 22.5 per cent of the population under review.

What share of the general lag in the figures for individual establishments is due to the lack of comparability between the census figures of population and for actual statistics of occupied persons is indeterminate.

Some light is thrown on the figures by comparing the percentage of total population and of occupied persons aged 65 years and over as reported in the census figures. These data are shown in Table 2.

TABLE 2.—PERCENTAGE OF TOTAL POPULATION OVER 15 YEARS OLD AND OF OCCUPIED PERSONS ACCORDING TO AGE

Workers aged—	United States population, 1920, 15 years old and over		Occupied persons, 1920, 15 years old and over	
	Number	Per cent of total	Number	Per cent of total
15 to 24 years.....	18,707,577	26.0	10,314,519	25.2
25 to 44 years.....	31,278,522	43.4	18,990,959	46.5
45 to 64 years.....	17,030,165	23.7	9,904,654	24.2
65 years and over.....	4,933,215	6.9	1,689,737	4.1
Total.....	71,949,479	100.0	40,905,869	100.0

This table shows that 4.1 per cent of the total occupied persons 15 years old and over fall in the class 65 years old and over as compared with 6.9 per cent of the United States population 15 years old and over. Thus 4.1 per cent of the total occupied persons in the country are 65 years old and over as compared with 4.0 per cent of the total 60 years old and over in the Cheney silk mills (the concern with the highest percentage of older employees) and 0.8 per cent in the Ford Motor Co. (the firm with the lowest percentage of aged workers).

Of the three establishments under consideration, for which separate data are available, the Ford Motor Co. and the California & Hawaiian Sugar Corporation came into being comparatively recently, the former in 1908 and the latter in 1906. In contrast with these establishments the Cheney silk mills began operations in 1843. Thus Cheney Bros. have operated their mills for a long enough period to have built up a force of long-service older employees.

It is also important to note that the Cheney figures, unlike those for the California & Hawaiian Sugar Refining Corporation, include the entire force and that the inclusion of office and managerial workers may augment the number of persons in the higher age groups materially.

The following table shows the original material upon which this comparison is based:

TABLE 3.—AGE DISTRIBUTION OF WORKERS, BY ESTABLISHMENTS

Industry and age group	Workers		Industry and age group	Workers	
	Number	Per cent of total		Number	Per cent of total
<b>Cotton mills (9), North:<sup>1</sup></b>			<b>Ford Motor Co., Detroit area:<sup>4</sup></b>		
Under 16 years.....	46	3.7	Under 20 years.....	618	0.7
16 and under 20 years.....	280	22.4	20 and under 30 years.....	28,483	31.4
20 and under 25 years.....	251	20.1	30 and under 40 years.....	34,230	37.8
25 and under 30 years.....	178	14.3	40 and under 50 years.....	20,620	22.8
30 and under 40 years.....	221	17.7	50 and under 60 years.....	5,906	6.5
40 and under 50 years.....	176	14.1	60 and under 70 years.....	680	.8
50 and under 60 years.....	73	5.8	70 years and over.....	20	( <sup>5</sup> )
60 years and over.....	24	1.9	<b>Total.....</b>	<b>90,557</b>	<b>100.0</b>
<b>Total.....</b>	<b>1,249</b>	<b>100.0</b>			
<b>Cotton mills (9), South:<sup>1</sup></b>			<b>California &amp; Hawaiian Sugar Refining Corporation (refinery workers):<sup>4</sup></b>		
Under 16 years.....	53	4.8	Under 18 years.....	3	.2
16 and under 20 years.....	266	24.2	18 to 20 years.....	70	4.7
20 and under 25 years.....	231	21.0	21 to 25 years.....	229	15.4
25 and under 30 years.....	156	14.2	26 to 30 years.....	301	20.3
30 and under 40 years.....	214	19.5	31 to 35 years.....	271	18.3
40 and under 50 years.....	137	12.5	36 to 40 years.....	251	16.9
50 and under 60 years.....	31	2.8	41 to 45 years.....	161	10.9
60 years and over.....	12	1.1	46 to 50 years.....	83	5.6
<b>Total.....</b>	<b>1,100</b>	<b>100.0</b>	51 to 55 years.....	55	3.7
<b>Cheney Bros. (silk workers, entire force):<sup>2</sup></b>			56 to 60 years.....	22	1.5
16 to 20 years.....	( <sup>3</sup> )	11.0	61 to 65 years.....	19	1.3
21 to 30 years.....	( <sup>3</sup> )	29.0	Over 65 years.....	18	1.2
31 to 40 years.....	( <sup>3</sup> )	28.0	<b>Total.....</b>	<b>1,483</b>	<b>100.0</b>
41 to 50 years.....	( <sup>3</sup> )	17.0			
51 to 60 years.....	( <sup>3</sup> )	10.0			
61 to 70 years.....	( <sup>3</sup> )	4.0			
All other ages.....	( <sup>3</sup> )	1.0			
<b>Total.....</b>	<b>(<sup>3</sup>)</b>	<b>100.0</b>			

<sup>1</sup> United States Women's Bureau. Bulletin No. 52: Lost time and labor turnover in cotton mills, p. 26.

<sup>2</sup> National Industrial Conference Board. Industrial Relations Activities at Cheney Bros., p. 4.

<sup>3</sup> Not shown.

<sup>4</sup> Labor Review, August, 1929, p. 64.

<sup>5</sup> Less than one-tenth of 1 per cent.

<sup>6</sup> Stanford University, Calif. California & Hawaiian Sugar Refining Corporation, by Boris Emmet, p. 87.

<sup>7</sup> It can not be determined from the Ford material whether the figures include office workers.



### Labor Conditions of Painters in Europe

IN THE Bulletin of the International Secretariat of National Unions of Journeymen Painters and Allied Trades No. 3 for 1929, issued from Hamburg, Germany, is given the annual report of the secretary for 1928, dated July, 1929. From this report the following statements relative to painters in the various countries affiliated with the international union are taken.

Membership of the affiliated unions in the various countries at the end of the years 1913, 1925, and 1928 was as follows:

MEMBERSHIP, BY COUNTRIES, 1913, 1925, AND 1928

Country	Membership at end of year—			Country	Membership at end of year—		
	1913	1925	1928		1913	1925	1928
Austria.....	5,980	2,026	3,144	Hungary.....	2,120	1,200	995
Czechoslovakia.....		201	150	Norway.....	1,128	1,200	700
Czechoslovakia, Prague.....		843	1,080	Sweden.....	2,116	4,900	6,831
Denmark.....	3,900	5,290	5,300	Switzerland.....	2,551	1,363	2,359
England.....			36,774	United States.....		115,000	120,000
Finland.....	647	1,150	1,787				
Germany.....	44,842	41,983	56,813	Total.....	66,398	179,823	241,199
Holland.....	3,114	4,667	5,266				

Collective agreements are stated to be in use in 12 countries affiliated with the union. National or provincial collective agreements exist in Denmark, England, Germany, Holland, and Scotland; national and district agreements, in Germany; and local agreements, in the United States, England, Hungary, Austria (6), Czechoslovakia (4), Finland (2), Germany (31), Norway (11), Sweden (90), and Switzerland (13). In Germany, there were 48 additional industrial agreements. About 67,100 organized and 27,160 unorganized painters work under national agreements. Commenting upon these figures, the secretary says:

The number of places for which there is no collective agreement at all is very small and without any importance. If there is for the moment no agreement in this or that locality, by far the majority of the journeymen painters there work under conditions agreed upon before; and sometimes the sphere of application of the larger agreements is so vague and the demarcation lines so uncertain that it is difficult to obtain exact figures. The farther the economic districts surrounding individual towns extend into the contiguous rural districts, the less definite are the actual lines of demarcation.

The working hours provided for in these agreements are as follows: United States, 40 to 44 hours per week; England and Scotland, 44 to 46½ hours; Finland, 46½ hours; Austria, Czechoslovakia, Denmark, Germany, Holland, Norway, and Sweden, 48 hours; Hungary, 50 hours; Switzerland, 48 to 50 hours. In the United States, the 5-day week prevails in many towns. In Austria, England, Germany, Holland, and Sweden, the 8½-hour day prevails in some places with a free Saturday afternoon. In Switzerland, a 9-hour day is found in some places with a free Saturday afternoon.

The wages per hour are given as follows: United States, \$1.25; Austria, 1.70 schillings (24 cents); Czechoslovakia, 6 to 6.20 crowns (18 cents); Denmark, 1.26 kroner (34 cents); England, 1s., 7½d.

(40 cents); Finland, 13 marks (33 cents); Germany, 1.20 to 1.43 marks (29 to 34 cents); Holland, 0.75 guilder (30 cents); Norway, 1.48 kroner (40 cents); Sweden, 1.60 to 1.70 kroner (43 to 46 cents); Switzerland, 1.80 francs (35 cents). Continuing, the secretary said: "Comparing present wages with those in 1914 it may be said that there has been a rise from 80 to much more than 100 per cent."

No piecework is done in Austria, England, or Switzerland, and little in Finland, Germany, Holland, and Hungary; but there is a good deal in Czechoslovakia, Denmark, Norway, and Sweden.

Holidays are compulsory in Austria and Czechoslovakia. They are provided for in collective agreements in the United States, Finland, Germany, Norway, Sweden, and Prague. In Germany, three days' vacation is granted after one year of service. In the United States vacations are often 6 or 8 days in length; and in Finland, 4 to 7.

Conditions of apprentices are regulated in Austria, England, Finland, Germany, Scotland, and Sweden. The period of apprenticeship varies considerably in different countries. In the United States, Hungary, and Switzerland, it is 3 years; in Czechoslovakia, 3 to 3½ years; in Sweden, 4 years; in Finland, Germany, and Holland, 3 to 4 years; in Denmark and Norway, 4 to 5 years; in England, 5 years; and in Scotland, 6 years.

Ninety-six labor disputes and 219 wage movements which occurred in 1928 were distributed as follows:

LABOR DISPUTES AND WAGE MOVEMENTS IN 1928, BY COUNTRY

Country	Strikes and lockouts		Wage movements	
	Number	Union members involved	Number	Union members involved
Austria.....			5	2,570
Czechoslovakia.....	1	180	4	1,000
Denmark.....			1	5,100
England.....	3	325		
Finland.....	2	1,022	5	400
Germany.....	58	4,082	163	54,954
Holland.....	16	216	2	5,204
Hungary.....	4	86	19	162
Norway.....	5	538	3	37
Sweden.....	6	650	16	500
Switzerland.....	1	40	1	120

In the annual reports from the unions in the various countries are many items of general interest. In the report from the Austrian unions is the following statement:

According to our computation, the average days of employment for members of the trade, whether masters, journeymen, or apprentices, was only 136 days in the year. One hundred and forty days must be worked to make an unemployed person eligible for unemployment benefit, so that it will be plain that many of our colleagues could not obtain unemployment benefit. There have also been more cases in which employers suspended their businesses or closed them down entirely. To remedy this evil, a committee has been formed of all the elements interested in the trade, which is known as the "national office for the preservation of property." The committee was very active in the past year, conducting a large-scale propaganda by means of posters on the railways, and in the trams and omnibuses throughout the whole of Austria, and putting articles into all sorts of papers urging the advisability of painting and decorating. This work is to be continued. Various authorities have also promised to distribute their work more evenly over the whole year.

The worker can now claim one week's holiday after a year's uninterrupted service, and two weeks after five years. Workers who have not worked a consecutive year in one workshop will, when they have worked with one firm for six weeks, have one hour's wage per week set aside for them, which amount they will receive on dismissal. If they leave of their own free will, they obtain, when they have worked for 16 weeks in the same workshop, one hour's wages for each week of employment.

In Czechoslovakia the union reports the possession of an unemployment fund of 140,000 crowns (\$4,200) which is under the supervision of the Ministry for Social Welfare.

In Denmark the report states that the public grants for unemployment are proportionate to the paid contributions of members. Due to a reduction in the grants by the Government during the year, the union was obliged to reduce its period of benefit from 100 to 70 days, paying a daily benefit of 3 kroner (80 cents) to 3,607 members for a total of 196,668 days; 1,846 received the benefit for the maximum of 70 days.

In England, the union spent £3,999 (\$19,425) for strikes and victimization cases, £214,023 (\$1,042,292) for unemployment benefits, and £2,021 (\$9,842) for propaganda.

In The Hague, Amsterdam, and Rotterdam, piecework rates have been fixed for work on new buildings, reckoned per square meter.

In Sweden, the union paid out 201,696 kroner (\$54,055) in unemployment benefits; 58,919 kroner (\$15,790) in strike benefits; and 12,550 kroner (\$3,363) in death benefits.

### Revival and Development of Handicrafts in Estonia

FOR the purpose of developing and organizing handicrafts as a means to combat unemployment, especially among skilled woman workers, the Estonian Government and municipal authorities together with private associations have formed a partnership business organization called "Home-handicraft," which functions under a charter granted by the Government. The shareholders of this semipublic business concern are the Government, municipalities, and private firms and persons who are interested in and desirous of promoting the handicrafts.<sup>1</sup>

The partnership began its activities on a business basis in 1927 with an initial capital of 1,365,000 marks (\$3,658). At the end of the year the capital increased to 3,000,000 marks (\$8,040). It has a trained and skilled directing staff. The central organization employs 170 workers. Besides these the local member organizations, such as women's clubs, have their own working staffs. During the first eight months sales of goods of their own production amounted to 6,500,000 marks (\$17,420). About one-half of the goods were sold in other countries, including America.

A similar organization named "Our home," established earlier for the same purpose, has now merged with the "Home-handicraft." The Ministry of Education and Social Welfare has provided trained instructors, including artists as designers. The combination of the ornament of modern styles with the ancient folk ornament gives the best results in both home and foreign markets. There have been two independent exhibitions of goods, one at Tallinn and the second

<sup>1</sup> Data are from Postimees, July 7 and Sept. 5, 1929, p. 4.



at Stockholm. Besides, certain goods have been exhibited at art expositions in Paris and New York, and at furniture and building expositions abroad. Also, certain sporting goods have been exhibited in show windows in England and the Netherlands.

These exhibitions and advertisement campaigns have had a satisfactory result. For instance, the exhibition in Paris has resulted in a substantial standing order by a large Paris firm dealing in handicraft art goods.

During the present year the "Handicraft" hopes to sell goods abroad in value of 10,000,000 marks (\$26,800). It is planned to give special attention to those branches which are already on a paying basis, such as rugs, sofa pillows and covers, tablecloths, leather goods, etc., and knitted goods, such as gloves and mittens, caps, sweaters, and the like. Next in order come lace and embroidery goods, which are already nearing the paying level.

Although the workers employed in the "Handicraft" are skilled, some highly skilled, yet a certain number of unskilled workers, especially young girls, are also employed as apprentices.

### Wages and Labor Conditions in Syria

IN Syria, as in other parts of the world, there has been a general trend of population away from the land toward the cities in recent years, according to a report dated July 25, 1929, from American Consul J. H. Keeley, jr., at Beirut. Labor for the farms, therefore, is more difficult to obtain than for the small industries and trades. The supply of agricultural labor has been further depleted because of bad crops, which have driven many of the peasants to seek other kinds of work.

Labor for the trades, which in Syria consist principally of small shops for carpentry, shoemaking, and tailoring, and small weaving establishments, had been reduced by the war but was considerably increased when the French authorities permitted large numbers of Armenian refugees to enter the country. These refugees are said to be "willing to accept wages just above the starvation level," and consequently they outbid the natives. It is reported that there has been considerable prejudice and antagonism against them on the part of the Syrians, especially in the interior of the country, where the report states they have outbid the natives in almost all branches of industry. The Armenians apparently do not care for agricultural work, "preferring to remain congested in colonies on the outskirts of the principal cities."

The report contains the following data on wages:

Wages remain about normal. In Beirut, the price of unskilled labor remains at about 65 Syrian piasters (50 cents) per day, this being the rate set by the municipality for its unskilled employees for an 8 to 10 hour day. The day wage in Damascus is slightly less, being about 1 medjidie or 40 cents. Farm labor in the Aleppo district commands about the same price.

In the trades, the average day's wage is from 40 to 60 cents, and for skilled workmen such as masons, carpenters, blacksmiths, etc., wages range from 75 cents to \$1.15 for 8 to 10 hours, depending upon the season. In the Damascus tanneries, employees earn from 50 cents to \$2 and in the textile factories from 50 cents to \$2.50 per day, depending upon the amount of skill required.

Prices of domestic labor have risen slightly, due, no doubt, to the growing scarcity of good servants. Female cooks of moderate ability demand 3 to 4 gold pounds (\$13.20 to \$17.60) per month and maids from 2 to 2½ gold pounds (\$8.80 to \$11). Male cooks demand from \$20 to \$40 per month.

# MINIMUM WAGE

## Wage-Fixing Legislation in the United States

**S**EVERAL of the States and Congress have attempted to influence the amount of wages paid to employees by providing for the fixing of a minimum amount. The legislation may be divided into two general classifications: (1) That affecting employees of contractors engaged on public works of the State. (2) That affecting wages in private industrial enterprises.

### Public Works

THE LEGISLATION of the several States which have attempted to fix a minimum wage of employees of contractors engaged upon public works of the State may in turn be divided into two classifications: (1) Those having a provision to the effect that not less than the current rate of per diem wages in the locality where the work is performed shall be paid to workmen; and (2) those which fix a stated minimum wage.

States having "current-rate" provisions are:

- Arizona: Revised Statutes, 1913, section 3103.
- Delaware: Revised Code, 1915, section 2161 (limited to Wilmington).
- Idaho: Compiled Statutes, 1919, section 2324, amended by Laws of 1923, chapter 93.
- Kansas: General Statutes, 1915, section 5870, as amended by Laws of 1923, chapter 157.
- Maryland: Public Local Laws, Code 1888, article 4, section 31a, as amended by Laws of 1910, chapter 94, page 642 (Baltimore only).
- Massachusetts: General Laws, 1921, chapter 149, sections 26, 27.
- Oklahoma: Compiled Statutes, 1921, section 7255.
- New York: Acts of 1921, chapter 50, section 220, as amended by Laws of 1921, chapter 642, as amended by Laws of 1927, chapter 563.

States having fixed minimum amounts in their laws are:

- California: Code, 1906, General Law No. 2894, as amended by Laws of 1915, chapter 666.
- Hawaii: Revised Laws, 1925, section 178, as amended by Acts of 1925, No. 165.
- Maryland: Public Local Laws, article 4, section 31a, as amended by Acts of 1910, page 642 (limited to Baltimore).
- Porto Rico: Acts of 1923, No. 11.

Several interesting cases involving the "current-rate" provisions have come before the courts, two of which went to the Supreme Court of the United States. The commissioner of labor in Oklahoma, acting under the Oklahoma current wage law, had an investigation made of the wages paid in the vicinity in which a contractor was engaged in building certain bridges under contracts made with the State. The commissioner threatened the construction company and its officers with criminal prosecution on the ground that the wages paid by the contractor were below the current wages in the locality where the work was being performed. The construction company



brought a suit in the United States District Court for the Western District of Oklahoma to enjoin the State and county officers of Oklahoma from enforcing the provisions of the current rate of wages law. An interlocutory injunction was awarded and an appeal was taken to the Supreme Court of the United States. That court, on January 4, 1926 (*Connally v. General Construction Co.*, 269 U. S. 385), held the statute void for uncertainty, reasoning that a criminal statute which either forbids or requires the doing of an act in terms so vague that men of common intelligence must guess at its meaning, and may differ as to its application, lacks the first essential of "due process of law."

Following the decision of the United States Supreme Court in the Oklahoma case, two cases arose in New York State (*Morse v. Delaney*, 218 N. Y. S. 571, affirmed 218 N. Y. S. 826, and *Campbell v. City of New York*, 216 N. Y. S. 141, affirmed 219 N. Y. S. 131). The New York law was upheld in the lower courts and the cases were then taken to the Court of Appeals of New York. That court, on February 23, 1927, upheld the constitutionality of the New York statute. That court, in referring to the *Connally* case, said that "the decision was merely this, that in its application to that employer, the statute, which is very similar to our own, was too obscure and indefinite to sustain a charge of crime." Referring to the cases before the court for decision, the court said: "We are met in the case at hand by a problem of a different order. There is no question before us now of punishment for crime. There is merely a question of the regulation of a form of contract. The legislature has said that contractors working for the State or for its civil subdivisions shall bind themselves by a promise which is criticized as indefinite and meaningless. Plainly the Constitution of the United States has nothing to say about regulations of that kind. The fourteenth amendment does not embody a provision that municipal contracts shall be perspicuous and definite. \* \* \* The form of contract being lawful to the extent that it repeats the provisions of the statute, there is no occasion to determine the remedies, criminal or civil, that will be available to the municipality if the claim shall be made hereafter that those provisions have been violated." (*Campbell v. City of New York*, 155 N. E. 628, affirmed U. S. Supreme Court 277 U. S. 573.)

Within two months following this decision by the Court of Appeals of New York, the State legislature amended section 220, chapter 50 of the Laws of 1921, by defining "prevailing rate of wage" and "locality" (Acts of 1927, ch. 563). This act apparently was passed to make the prevailing rate of wages act of New York meet the test as to uncertainty laid down in *Connally v. General Construction Co.*

The *Campbell* case was taken to the Supreme Court of the United States, which court, on April 23, 1928, in a decision without an opinion dismissed the case on the authority of other decisions of the Supreme Court which held that the power of the State and its agencies over municipal corporations within its territory is not restrained by the provision of the fourteenth amendment. (*City of New York v. Campbell*, 277 U. S. 573.)



## Private Employment

LEGISLATION attempting to fix a minimum rate of wages in private industrial enterprises may be divided into three classifications—those relating to men, those relating to women, and those relating to minors. The minimum wage laws may also be divided into two other classifications—those which provide for the fixing of rates and depend for the enforcement of these rates upon public opinion (as in the case of the Massachusetts law) and those which provide legal means for enforcing the rate of wage when finally determined.

*Men.*—Minimum wage legislation as such has not been passed by any State for the fixing of the wages of men. Up to the present time minimum wage legislation has been limited to females, sometimes including male minors. However, under this heading should be noted the compulsory arbitration legislation of Kansas<sup>1</sup> and the Adamson Law passed by Congress in 1916.<sup>2</sup>

*Women.*—The minimum wage legislation of the United States has been generally limited to females, whether adult or minors, and in several instances, to male minors. Massachusetts was the first State (1912) to enact a minimum wage law covering women and children in private employment. In 1913 eight States passed legislation on this subject (California, Colorado, Minnesota, Nebraska, Oregon, Utah, Washington, and Wisconsin). In 1915 Arkansas and Kansas acted. In 1917 the Arizona Legislature passed a minimum wage act, and the following year Congress passed a minimum wage act for the District of Columbia. In 1919 three laws were passed (those of North Dakota, Porto Rico, and Texas), and since then only one State, South Dakota (in 1923), has passed a law on the subject. To date 15 States, the District of Columbia, and Porto Rico have passed such legislation.

The 17 acts may be divided into two groups according to the method of determining wage rates. The legislation of four States (Arizona, Porto Rico, South Dakota, and Utah) fixes flat rates in the act. The Arkansas law sets a flat rate but gives power to a commission to change the rate, and in the other 12 States (California, Colorado, District of Columbia, Kansas, Massachusetts, Minnesota, Nebraska, North Dakota, Oregon, Texas, Washington, and Wisconsin) the legislation provides a more flexible system which permits an administrative body to establish minimum rates.

The force of the rates fixed depends upon public opinion in two States, Massachusetts and Nebraska. The legislation of the other 15 States contains provisions for the legal enforcement of the wage rates.

The history of minimum wage legislation in the 17 States where legislation was enacted has been most discouraging to its advocates. The only appropriation ever made in connection with the Nebraska act was an initial one of \$500, which later was turned into the sinking fund of the State, no action ever having been taken under the law. The act was repealed by the legislature of 1919 (ch. 190), after an

<sup>1</sup> Acts of 1920, special session, ch. 29, as amended by Acts of 1921, ch. 261. Held unconstitutional so far as it permits the fixing of wages. (*Wolff Packing Co. v. Court of Ind. Relations*, 262 U. S. 522. See also 258 U. S. 181; 267 U. S. 552; 272 U. S. 306. Also Colorado Acts of 1915, ch. 180, sec. 30; C. L. of 1921, secs. 4353-4357, as amended by Acts of 1923, ch. 190. Also *People v. Fontuccio*, 215 Pac. 145.

<sup>2</sup> 39 Stat. 721. See U. S. Code, Title 45, secs. 65, 66. Held constitutional as a regulation of hours, *Wilson v. New*, 243 U. S. 332. See dissenting opinions on constitutionality of wage legislation.

existence of six years, during which time it was inoperative. The Texas act of 1919 was repealed in 1921 (ch. 118), at which time a new bill was passed, which, however, was vetoed by the governor, leaving the State without a minimum wage law. The Utah act was repealed in 1929 (ch. 9).

The action of the Legislatures of Nebraska, Texas, and Utah was probably not so discouraging to the advocates of minimum wage legislation as the action of the courts on the question of the constitutionality of this type of legislation.

The first case which went to the Supreme Court of the United States involved the minimum wage law of Oregon, which had been held constitutional in that State. The decision of the court was affirmed by the Supreme Court in 1917, the court being equally divided, four justices in favor of the constitutionality, four justices against, and one taking no part in the decision. (*Stettler v. O'Hara*, 243 U. S. 629.<sup>3</sup>)

In 1923 the District of Columbia minimum wage law, which had been passed by Congress, came before the United States Supreme Court on the question of constitutionality, and that court held the law invalid. (*Adkins v. Children's Hospital*, 261 U. S. 525 (1923).<sup>4</sup>) This opinion was followed in 1925 by a decision holding invalid the Arizona law (*Murphy v. Sardell*, 269 U. S. 530), and in 1927 by a decision holding the Arkansas law unconstitutional. (*Donham v. West-Nelson Mfg. Co.*, 273 U. S. 657.<sup>5</sup>) The Supreme Court of Kansas followed the *Adkins* case and held the Kansas minimum wage law unconstitutional in the case of *Topeka Laundry Co. v. Court of Industrial Relations*, 119 Kans. 13. The Porto Rican Supreme Court has also followed the decision of the Supreme Court of the United States and held its minimum wage law invalid. (*People v. Successors of Larnaga & Co.*, 32 P. R. Rep. 766.) Several cases were decided in the courts of Minnesota holding the law constitutional.<sup>6</sup> In the latest case decided in Minnesota (*Stevenson v. St. Clair*, 161 Minn. 444), the State court recognized the effect of the *Adkins* case but held that it did not affect the Minnesota law as applied to minors. One case in North Dakota came before the courts (*Northwestern T. E. Co. v. Workmen's Compensation Bureau*, 47 N. D. 397). In Washington, in the cases of *Larsen v. Rice*, 100 Wash. 642, and *Spokane Hotel Co. v. Younger*, 113 Wash. 359, the minimum wage law was held constitutional and in a decision in the year 1926 (*Sparks v. Moritz*, 141 Wash. 417), the constitutional question was ignored.

The Massachusetts law is clearly in a class by itself. The law depends for its enforcement upon public opinion. It has been held constitutional in the State courts in the case of *Holcombe v. Creamer*, 231 Mass. 99, and is apparently not within the condemnation of the *Adkins* case decided by the United States Supreme Court.

Wisconsin in 1925 (ch. 176) attempted to maintain the effectiveness of the law by changing the basis of the minimum wage legislation from the positive principle that the minimum rate must provide the necessary cost of proper living to the negative principle that no wage

<sup>3</sup> See State Decisions, 69 Oreg. 519, 70 Oreg. 261.

<sup>4</sup> See decision of lower court in 284 Fed. 613.

<sup>5</sup> See State Court Decision, *State v. Crowe*, 130 Ark. 272.

<sup>6</sup> See *Williams v. Evans*, 139 Minn. 32; *G. O. Miller Telegraph Co. v. Minimum Wage Commission*, 145 Minn. 262; *State v. Allyn*, 150 Minn. 123.



	California	Colorado	Massachusetts	Minnesota
Citation-----	Acts of 1913, ch. 324; Acts of 1915, ch. 571. See G. L., 1919, ch. 161, act 2107.	Acts of 1917, ch. 98. See C. S., 1921, ch. 77, secs. 4197-4217.	Acts of 1912, ch. 706; Acts of 1913, chs. 330, 673; Acts of 1914, ch. 368; Acts of 1915, ch. 65; Acts of 1916, ch. 303; Acts of 1919, chs. 72, 76, 77; Acts of 1920, chs. 48, 387. See G. L., 1921, ch. 151.	Acts of 1913, ch. 547. See C. S., 1921, chs. 3904-3923, and Acts of 1923, ch. 153.
Classes covered-----	Women; minors (either sex) under 18 years of age.	Women; minors (either sex) under 18 years of age.	Females, minors-----	Women; minors (females under 18 years of age, males under 21 years of age).
Exceptions-----	Women physically defective by age or otherwise may be granted a special license by commission. License must be renewed every 6 months. Apprentices: Special wages set by commission during specified period of apprenticeship.	Women physically defective or crippled by age or otherwise or less efficient than women workers of ordinary ability may be granted special license, stating wage; number so licensed must not exceed one-tenth of the total number employed in any establishment.	Any woman physically defective may obtain a license fixing a lower wage.	Women physically defective by age or otherwise may be granted a special license fixing a lower wage. License must be renewed every 6 months. Apprentices: Special wages set by commission during specified period of apprenticeship.
Occupations or industries covered.	The various occupations, trades, and industries in which women and minors are employed.	Any occupation. (Occupation construed to include "any and every vocation, trade, pursuit, and industry.")	Any occupation-----	Any occupation. (Occupation construed to include "any and every vocation, trade, pursuit, and industry.")
Body empowered to administer law.	Industrial welfare commission. (Commission is composed of 5 persons, 1 of whom shall be a woman appointed by the governor for term of 4 years. The members are to receive \$10 per diem when employed at their duties.)	Industrial commission. <sup>1</sup> (Commission is composed of 3 members appointed by the governor, with the consent of the senate, for terms of 6 years, at a salary of \$4,000 per annum. Not more than 1 member may represent employees' interests nor may more than 1 represent employers.)	Board of conciliation and arbitration. (Board is composed of the 3 associate commissioners of the department of labor and industries. These commissioners must include 1 representative of labor and one representative of employers of labor, appointed by the governor for terms of 3 years.)	Industrial commission. (Commission is composed of 3 salaried members appointed by the governor by and with the consent of the senate for terms of 6 years.)
Method of selecting occupation or industry to be considered by this body.	Investigation at discretion of commission to determine necessity of establishing a minimum wage in the occupation. Investigation conducted by examining papers, books, witnesses, and by holding public hearings at which employers, employees, and other interested persons may testify.	Investigation at discretion of commission, or at the request of not less than 25 persons engaged in occupation, to determine necessity of establishing a minimum wage in the occupation; investigation conducted by examining books, papers, and witnesses, and by public hearings at which employers, employees, or other interested persons may testify.	Investigation at discretion of board to determine necessity of establishing a minimum wage in an occupation.	Investigation at discretion of commission, or on request of 100 persons engaged in occupation, to determine necessity of establishing a minimum wage in the occupation. Investigation conducted by examining papers, books, witnesses, and by holding public hearings at which employers, employees, or other interested persons may testify.
Method of arriving at wage awards.	Commissioner calls a wage board composed of an equal number of representatives of employers and employees in the trade in question with a member of the commission as chairman. The board investigates the trade and reports to the commission; fixes the minimum wage necessary. After a public hearing the commissioner fixes the minimum wage for the trade.	Commission investigates an occupation by examining books and records and by holding public hearings at which employers, employees, or other interested persons may testify. Commission then sets minimum wage for such occupations; or commission establishes a wage board composed of not more than 3 representatives of employers in the occupation in question, an equal number of representatives of female employees, an equal number of representatives of the public, and a member of the commission. The representatives of the employers and the employees to be elected by their respective groups; at least 1 member of every group to be a woman. The wage board investigates the occupation and reports to the commission a minimum wage, which the commission may accept or reject.	Organization by the board of a wage board composed of an equal number of representatives of employers of the occupation in question and of persons to represent the female employees in said occupation, and of 1 or more disinterested persons to represent the public, but the representatives of the public shall not exceed one-half the number of the representatives of either of the other parties. After study of the needs of the employees and the financial condition of the occupation, the wage board recommends a minimum wage which the board may accept or reject.	After the preliminary investigation the commission may determine a minimum wage for the occupation. The commission establishes a wage board of not less than 3 representatives of employers in the occupation in question, an equal number of representatives of employees, and 1 or more disinterested persons to represent the public, but no more than one-half the number of the public than the other groups. At least 1 member of this board and the public group must be a woman. This board recommends a minimum wage, which the commission may accept or reject.
Means provided for securing enforcement of award.	Refusal to comply with law a misdemeanor. Employee may recover back wages and costs.	Refusal to comply with law a misdemeanor.	Publish names of all employers refusing to comply with awards of the board.	Refusal to comply with law a misdemeanor. Employee may recover back wages and costs.
Principles by which amount of award is determined.	Amount necessary to supply the cost of proper living and to maintain the health and welfare of such workers.	Wages adequate to supply the necessary cost of living and to maintain health. Wages sufficient for living wages for women and minors of ordinary ability.	Wages suitable for a female of ordinary ability based on needs of the employee and the financial condition of the industry. Wages adequate to supply the necessary cost of living and to maintain the worker in health.	Amount adequate to supply the cost of proper living and to maintain the health and welfare of such workers.

<sup>1</sup> Legislature has never made an appropriation sufficient to put this law into effect.



# PRINCIPAL PROVISIONS OF LAWS IN EFFECT

Massachusetts	Minnesota	North Dakota	Oregon
Acts of 1913, chs. 368; Acts of 1916, ch. 303; Acts of 1917, ch. 77; Acts of 1920, ch. 151.	Acts of 1913, ch. 547. See G. S., 1913, secs. 3904-3923, and Acts of 1921, ch. 81, Acts of 1923, ch. 153.	Acts of 1919, ch. 174; Acts of 1927, ch. 83, repealed sec. 17. But see Acts of 1927, ch. 67, and Acts of 1929, ch. 79.	Acts of 1913, ch. 62. See secs. 6668-6687.
Physically defective may obtain a license fixing a lower wage.	Women; minors (females under 18 years of age, males under 21 years of age). Women physically defective may obtain a license fixing a lower wage. Number of licenses may not exceed one-tenth of the number employed in the establishment.	Women; minors (under 18 years of age). Any female physically defective by age or otherwise may obtain a license fixing a lower wage.	Women; minors (under 18 years of age). Any woman physically defective by age or otherwise may obtain a license fixing a lower wage.
Any occupation. (Occupation to include any business, industry, trade, or branch of a trade.)	Any occupation. (Occupation to include any business, industry, trade, or branch of a trade.)	Any occupation. (Occupation to include a business, industry, trade, or branch thereof. <i>Exceptions:</i> Agricultural or domestic service.)	Any occupation. (Occupation to include any and every business, industry, trade, or pursuit.)
Industrial commission. (Commission is composed of 3 salaried members appointed by the governor by and with the advice and consent of the senate for 6-year terms.)	Industrial commission. (Commission is composed of 3 salaried members appointed by the governor by and with the advice and consent of the senate for 6-year terms.)	Workmen's compensation bureau. (Bureau is composed of the commissioner of agriculture and labor and two other workmen's compensation commissioners appointed by the governor for terms of 5 years at a salary of \$2,500 per annum.)	Industrial welfare commission. (Commission is composed of 3 members appointed by the governor for terms of 3 years, 1 to represent the working class and 1 the employer.)
Investigation at discretion of board to determine necessity of establishing a minimum wage in the occupation.	Investigation at discretion of commission or on request of 100 persons engaged in the occupation to determine the necessity of establishing a minimum wage in the occupation. Investigation conducted by examining papers, books, witnesses, and by holding public hearings at which employers, employees, or other interested persons may testify.	Investigation at discretion of bureau to determine necessity of establishing a minimum wage in the occupation. Investigation conducted by examining papers, books, and witnesses, and by holding public hearings at which any interested persons may testify.	Investigation at discretion of commission to determine necessity of establishing a minimum wage in the occupation. Investigation conducted by examining papers, books, and witnesses, and by holding public hearings at which any interested persons may testify.
After the preliminary investigation the commission may determine a minimum wage for the occupation in question. Or the commission establishes an advisory board of not less than 3 or more than 10 representatives of employers in the occupation in question, an equal number of employees, and 1 or more representatives of the public, but no more representatives of the public than in either one of the other groups. At least one-fifth of the membership of this board must be women and the public group must contain at least 1 woman. This board, after examination of books and witnesses, recommends a minimum wage, which the commission may accept or reject.	After the preliminary investigation the commission may determine a minimum wage for the occupation in question. Or the commission establishes an advisory board of not less than 3 or more than 10 representatives of employers in the occupation in question, an equal number of employees, and 1 or more representatives of the public, but no more representatives of the public than in either one of the other groups. At least one-fifth of the membership of this board must be women and the public group must contain at least 1 woman. This board, after examination of books and witnesses, recommends a minimum wage, which the commission may accept or reject.	Organization by the bureau of a conference composed of not more than 3 representatives of the employers and an equal number of representatives of the employees in the occupation in question, an equal number of representatives of the public, and 1 or more commissioners. After investigation the conference recommends a minimum wage, which the bureau may accept or reject.	Organization by the commission of a conference composed of not more than 3 representatives of employers in the occupation in question, an equal number of employees in the occupation in question, an equal number of representatives of the public, and 1 or more commissioners. After investigation the conference recommends a minimum wage, which the commission may accept or reject.
Refusal to comply with law a misdemeanor. Employee may recover back wages and costs.	Refusal to comply with law a misdemeanor. Employee may recover back wages and costs.	Refusal to comply with law a misdemeanor. Employee may recover back wages and costs.	Refusal to comply with law a misdemeanor. Employee may recover back wages and costs.
Wages adequate to supply the necessary cost of living and maintain women workers in health. Reasonable wages for minor workers.	Amount adequate to supply living wages for women and minors of ordinary ability.	Wages adequate to supply the necessary cost of living and maintain women workers in health. Reasonable wages for minor workers.	Wages adequate to supply the necessary cost of living and maintain women workers in health.

Oregon	South Dakota	Washington	Wisconsin
ch. 62. See O. L., 1920, 1927.	Acts of 1923, ch. 309-----	Acts of 1913, ch. 174; Acts of 1915, ch. 68; Acts of 1917, ch. 29. See Code, 1921, secs. 3526-3546.	Acts of 1913, ch. 712; Acts of 1925, ch. 176. See Wisc. Stats., 1923, secs. 104.01-104.12.
ors (under 18 years of age or otherwise may obtain a license fixing a lower wage.	Any woman or girl over the age of 14. Apprentices. Industrial commissioner must be notified of each apprentice and must give permission for his employment.	Women; minors (under 18 years of age). Any woman physically defective or crippled, by age or otherwise, may obtain a license fixing a lower wage.	Women; minors Any adult woman unable to earn the wage determined by the commission may obtain a license fixing a lower wage. Any employer may obtain a license to pay adult females less than the established wage, if employer shall satisfactorily establish that he is unable to pay such wage. Any minor unable to earn "a living wage" may obtain a license fixing a lower wage.
tion. (Occupation to which and every vocation, trade, and industry.)	Any factory, workshop, mechanical or mercantile establishment, laundry, hotel, restaurant, or packing house. Industrial commissioner-----	The various occupations, trades, and industries. Industrial welfare committee. (Committee is composed of the director of labor and industries, appointed by the governor with the consent of the senate and holding office at his pleasure, and the supervisor of industrial insurance and the supervisor of industrial relations, appointed by the director of labor and industries, and the supervisor of women in industry, appointed by the supervisor of industrial relations with the approval of the director of labor and industries.)	Every person in receipt of, or entitled to, any compensation for labor performed for any employer. Industrial commission. (Commission is composed of members appointed by the governor, with the advice and consent of the senate, for terms of 6 years at a salary of \$5,000 per year.)
fare commission. (Commission composed of 3 members appointed by the governor for terms of 1 year to represent the employer and 1 the employed.)		Investigation at discretion of the committee to determine the necessity of establishing a minimum wage in the occupation. Investigation conducted by examining papers, books, and witnesses, and by holding public hearings at which employer, employees, and other interested persons may testify.	Investigation at discretion of the commission, or on the filing of a verified complaint of any person, to determine the necessity of establishing a minimum wage in the occupation.
at discretion of commission to determine necessity of establishing a minimum wage in the occupation. Investigation conducted by examining papers, books, and witnesses, and by holding public hearings at which interested persons may testify.			
by the commission of a committee composed of not more than 10 representatives of the employers and 10 representatives of the employees, an equal number of representatives of the public but no more representatives of the public than in either one of the other groups, and a member of the committee. The conference recommends a minimum wage, which the commission may accept or reject.	Minimum wage fixed by law.	Organization by the committee of a conference composed of an equal number of representatives of the employers and of the employees in the occupation in question and 1 or more representatives of the public but no more representatives of the public than in either one of the other groups, and a member of the committee. The conference recommends a minimum wage, which the committee may accept or reject.	Organization by the commission of an advisory wage board selected to represent fairly the employers, the employees, and the public. The living wage determined by the commission and this advisory board shall be the legal minimum wage.
ply with law a misdemeanor. Employee may recover back wages and costs.	Refusal to comply with law a misdemeanor. Employee may recover back wages and costs.	Refusal to comply with the law a misdemeanor. Employee may recover back wages and costs.	Payment of wages in violation of any order of the commission shall be deemed a violation of the law unless it can be proved that the order was unreasonable. Every day an order is not complied with is a separate offense.
ate to supply the necessary living and to maintain	Amount equals a living wage.	Wages adequate for their maintenance. Wages adequate to supply the necessary cost of living and to maintain the workers in health.	"Living wage," i. e., compensation sufficient to enable the employee to maintain herself under conditions consistent with her welfare. "No wage paid or agreed to be paid by any employer to any adult female employee shall be oppressive." "Oppressive" is defined as "any wage lower than a reasonable and adequate compensation for services rendered."





shall be oppressive. Apparently the Wisconsin law is considered effective in the State of Wisconsin on this basis.<sup>7</sup>

To sum up the present status of minimum wage legislation for women in private industry, three laws have been repealed (Nebraska, Texas, and Utah), three laws have been held unconstitutional by the United States Supreme Court (Arizona, Arkansas, and District of Columbia), and two laws have been held unconstitutional by local supreme courts following the decision of the United States Supreme Court in the Adkins case (Kansas and Porto Rico). The Minnesota law recognizes the effect of the Adkins case but is considered valid for minors. The Colorado law is ineffective because of lack of adequate appropriations.<sup>8</sup> North Dakota has repealed (Acts of 1927, ch. 83) section 17 of the minimum wage act, which provided for regular appropriations, and made it necessary to pass separate appropriation bills biennially. Wisconsin has amended its law for the purpose of continuing the legislation as valid within the decision of the Adkins case. The Massachusetts law, depending upon public opinion to enforce its minimum wage orders, is apparently constitutional. California and Washington, it is understood, and probably North Dakota, Oregon, and South Dakota, are depending upon public opinion with the help of the minimum wage legislation to affect the wage of women in private employment.

*Minors.*—The States still having minimum wage legislation on their statute books are probably, at least to some extent, influencing wage rates of minors. As the Adkins case, decided by the United States Supreme Court, did not involve a minor, the decision of the case holding invalid a law which provided for the fixing of a minimum wage rate for adult women does not necessarily hold invalid the legislation which provides for the fixing of a minimum wage rate for minors.<sup>9</sup>

The inserted table facing page 32 and the following table, present an analysis of the legislation which has not been repealed or declared unconstitutional, as based upon and taken from the United States Women's Bureau Bulletin No. 63: State laws affecting working women.<sup>10</sup>

AWARDS MADE UNDER LAWS IN EFFECT

State	Date of award	Occupation or industry	Class of employees	Amount of wages
California.....	July 31, 1920	General and professional offices.	Experienced women or minors.	\$16 per week; \$69.33½ per month.
			Inexperienced women: 18 years and over....	\$12 per week; \$52 per month.
			Under 18 years.....	\$10 per week; \$43.33½ per month.
	Apr. 8, 1923	Mercantile industry.....	Experienced woman or minor.	\$16 per week; \$69.33½ per month.
			Inexperienced: Women.....	\$12 per week.
			Minors.....	\$10 per week.

See *Folding Furniture Works v. Industrial Commission*, 300 Fed. 991, 1924, United States District Court, W. D. Wisconsin.

<sup>7</sup> *Davis v. People—Colorado—240 Pac. 942.* (See U. S. Women's Bureau Bul. No. 63, p. 52.)

<sup>8</sup> See *Stevenson v. St. Clair*, 161 Minn. 444, in which this particular question was discussed.

<sup>10</sup> See also Bureau of Labor Statistics Bul. No. 285 (1921): Minimum wage laws in the United States, construction and operation; and U. S. Women's Bureau Bul. No. 61 (1928): The development of minimum wage laws in the United States, 1912 to 1927.

## AWARDS MADE UNDER LAWS IN EFFECT—Continued

State	Date of award	Occupation or industry	Class of employees	Amount of wages
California.....	May 8, 1923	Manufacturing industry..	Experienced woman or minor.	\$16 per week.
			Inexperienced women or minors.	\$9 per week.
	May 9, 1923	Fish-canning industry....	Women or minors: Experienced.....	\$0.33 $\frac{1}{4}$ per hour.
			Inexperienced.....	\$0.28 per hour.
	July 23, 1923	Laundry and dry cleaning.	Women or minors: Experienced.....	\$16 per week.
			Inexperienced.....	\$14 per week.
	Aug. 8, 1923	Fruit and vegetable canning.	Experienced woman or minor.	\$0.33 $\frac{1}{4}$ per hour.
			Inexperienced woman or minor.	\$0.25 per hour.
	do.....	Fruit and vegetable packing industry.	Experienced woman or minor.	\$0.33 $\frac{1}{4}$ per hour.
			Inexperienced woman or minor.	\$0.25 per hour.
	Sept. 14, 1923	Unclassified occupations..	Experienced: Woman or minor.....	\$16 per week.
			Minors where no women are employed.	\$12 per week.
			Inexperienced: Women.....	Do.
Massachusetts	do.....	Hotels and restaurants....	Minors.....	\$10.56 per week.
	do.....	Nut cracking and sorting industry.	Women or minors.....	\$16 per week.
			Experienced woman or minor.	\$0.33 $\frac{1}{4}$ per hour.
			Inexperienced woman or minor.	\$0.25 per hour.
	Feb. 1, 1920	Men's clothing and rain-coats.	Experienced females.....	\$15 per week.
	Mar. 1, 1920	Corset factories.....	Inexperienced females.....	\$7 per week.
			Experienced females.....	\$13 per week.
			Inexperienced females: 17 years and over.....	\$10 per week.
			Under 17 years of age.....	\$8 per week.
	July 1, 1920	Knit goods.....	Experienced females.....	\$13.75 per week.
			Inexperienced.....	\$8.50 per week.
	Feb. 1, 1921	Office and building cleaners.	Females.....	\$15.40 per week.
				\$0.37 per hour.
	May 15, 1922	Paper-box occupation....	Experienced females.....	\$13.50 per week.
			Inexperienced females: 18 years and over.....	\$10 per week.
			Under 18 years of age.....	\$8.50 per week.
	do.....	Women's clothing occupation.	Experienced employees..	\$14 per week.
			Inexperienced employees: 18 years and over.....	\$11 per week.
			Under 18 years of age.....	\$9 per week.
	June 1, 1922	Men's furnishings factories.	Experienced employees..	\$13.75 per week.
			Inexperienced employees: 16 years and over.....	\$9 per week.
			Under 16 years of age.....	\$8 per week.
	do.....	Muslin underwear, etc., occupation.	Experienced employees..	\$13.75 per week.
			Inexperienced employees: 16 years and over.....	\$8 per week.
			Under 16 years of age.....	\$7.50 per week.
	do.....	Retail stores.....	Experienced employees..	\$14 per week.
			Inexperienced employees: Under 18 years.....	\$10 per week.
			All others.....	\$12 per week.
	July 1, 1922	Laundries.....	Experienced employees..	\$13.50 per week.
			Inexperienced employees..	\$11 per week.
	Mar. 1, 1923	Brush industry.....	Females: Experienced.....	\$13.92 per week.
			Inexperienced.....	\$9.60 per week.
	Jan. 2, 1924	Manufacture of druggists' preparations, etc.	Females: Experienced.....	\$13.20 per week.
			Inexperienced.....	\$9.60 per week.

## AWARDS MADE UNDER LAWS IN EFFECT—Continued

State	Date of award	Occupation or industry	Class of employees	Amount of wages
Massachusetts	Apr. 1, 1925	Canning and preserving and minor lines of confectionery.	Experienced employees: 18 years and over.... 16 and under 18 years Under 16 years..... Inexperienced employees: 18 years and over.... 16 and under 18 years Under 16 years.....	\$13.00 per week. \$11 per week. \$9 per week.
	May 1, 1925	Bread and bakery products.	Experienced employees. Inexperienced employees: 16 years and over.... Under 16 years.....	\$13 per week. \$12 per week. \$10 per week. \$8 per week.
	July 1, 1925	Millinery occupation....	Experienced employees. Inexperienced employees	\$13 per week. \$6 per week.
	Jan. 1, 1926	Stationery goods and envelopes.	Experienced employees. Inexperienced employees: 16 years and over.... Under 16 years.....	\$13.75 per week. \$11 per week. \$9 per week.
	Mar. 1, 1926	Candy occupation.....	Experienced..... Inexperienced.....	\$13 per week. \$9 per week.
	Jan. 1, 1927	Jewelry and related lines.	Experienced..... Inexperienced.....	\$14.40 per week. \$12 per week.
	Mar. 1, 1927	Toys, games, and sporting goods.	Experienced..... Inexperienced: 16 years and over.... All others.....	\$13.50 per week. \$12 per week. \$10.50 per week.
	Jan. 1, 1921	Any occupation.....	Experienced: Women or minors in cities of 5,000 or more population. Women or minors in towns of less than 5,000 population. Inexperienced: Females 18 years or over in cities of 5,000 or more population. Females 18 years or over in cities of less than 5,000 population. Females under 18 years in cities of 5,000 or more population. Females under 18 years in cities of less than 5,000 population.	\$12 per week; \$0.25 per hour for all hours in excess of 48 per week. \$10.25 per week; \$0.215 per hour for all hours in excess of 48 per week. \$9.12 per week; \$0.19 per hour for all hours in excess of 48 per week. \$7.68 per week; \$0.16 per hour for all hours in excess of 48 per week. \$7.68 per week; \$0.16 per hour for all hours in excess of 48 per week. \$6.48 per week; \$0.13½ per hour for all hours in excess of 48 per week.
	Apr. 4, 1922	Public housekeeping, i. e., the work of waitresses in restaurants, hotel dining rooms, boarding houses, attendants employed at ice cream and light lunch stands and steam table or counter work in cafeterias and delicatessens where freshly cooked foods are served; and the work of chambermaids in hotels and lodging houses and boarding houses and hospitals, and the work of janitresses and car cleaners and of kitchen workers in hotels and restaurants and hospitals and elevator operators: Waitress or counter girl. Chambermaids and kitchen help.	Experienced..... Inexperienced..... Experienced..... Inexperienced.....	\$14.90 per week. \$11.90 per week. \$14.20 per week. \$11.20 per week.



## AWARDS MADE UNDER LAWS IN EFFECT—Continued

State	Date of award	Occupation or industry	Class of employees	Amount of wages
North Dakota.	Apr. 4, 1922	Manufacturing occupation, i. e., all processes in the production of commodities, i. e., includes the work performed in dressmaking shops and wholesale millinery houses, in the workrooms of retail millinery shops, and in the drapery and furniture-covering workshops, the garment alteration, art needlework, fur-garment making and millinery workrooms in mercantile stores, and the candy-making departments of retail candy stores, and of restaurants, and in bakery and biscuit manufacturing establishments, in candy manufacturing and in bookbinding and job-press feeding establishments: Biscuit and candy making.	Women: Experienced.....	\$14 per week; \$60.67 per month.
			Inexperienced.....	\$9 per week; \$39 per month.
			Women: Experienced.....	\$14 per week; \$60.67 per month.
			Inexperienced.....	\$9 per week; \$39 per month.
	do.....	All other manufacturing.	Women: Experienced.....	\$14 per week.
	do.....	do.....	Inexperienced.....	To be determined by conference between the board and the employer and employee concerned.
do.....	do.....	Mercantile occupation, i. e., the work of those employed in establishments operated for the purpose of trade in the purchase or sale of any goods or merchandise, and includes the sales force, the wrapping force, the auditing or checking force, the shippers in the mail-order department, the receiving, marking, and stockroom employees, and sheet-music saleswomen and demonstrators, and cigar-stand girls.	Women: Experienced.....	\$14.50 per week; \$62.83 per month.
			Inexperienced.....	\$9.60 per week; \$41.60 per month.
	do.....	Laundry occupation, i. e., all the processes connected with the receiving, marking, washing, cleaning, ironing, and distribution of washable or cleanable materials. The work performed in laundry departments in hotels, hospitals, and factories.	Women: Experienced.....	\$14 per week, or \$13.50 per week (if laundry privileges are allowed); \$60.67 per month.
			Inexperienced.....	\$11 per week; \$47.67 per month.

## AWARDS MADE UNDER LAWS IN EFFECT—Continued

State	Date of award	Occupation or industry	Class of employees	Amount of wages
North Dakota	Apr. 4, 1922	Telephone occupation....	Women in towns of 1,800 and over population: Experienced..... Inexperienced..... In towns of under 1,800 population: Experienced..... Inexperienced.....	\$14 per week; \$60.67 per month. \$10 per week; \$43.43 per month. \$12 per week; \$52 per month. \$9 per week; \$39 per month.
Oregon.....	Oct. 14, 1919	Mercantile occupation, i. e., the work of those employed in establishments operated for the purpose of trade in the purchase or sale of any goods or merchandise, and includes the sales force, the wrapping employees, the auditing or check-inspection force, the shippers in the mail-order department, the receiving, marking, and stock-room employees, and sheet-music saleswomen and demonstrators. Manufacturing occupation, i. e., all processes in the production of commodities: Includes the work performed in dressmaking shops and wholesale millinery houses, in the workrooms of retail millinery shops, and in the drapery and furniture covering workrooms, the garment alteration, art needle work, fur garment making and millinery workrooms in mercantile stores, and the candy-making department of retail-candy stores and of restaurants. Personal service occupation, i. e., manicuring, hairdressing, barbering, and other work of like nature and the work of ushers in theaters. Laundry occupation, i. e., all the processes connected with the receiving, marking, washing, cleaning, and ironing, and distribution of washable and cleanable materials. The work performed in laundry departments in hotels and factories. Telephone and telegraph occupations.	Women: Experienced..... Inexperienced.....  Women: Experienced..... Inexperienced.....  Women: Experienced..... Inexperienced.....  Women: Experienced..... Inexperienced.....  Women: Experienced..... Inexperienced.....	\$13.20 per week. \$9 per week.  \$13.20 per week. \$9 per week.  \$13.20 per week. \$9 per week.  \$13.20 per week. \$9 per week.  \$13.20 per week. \$9 per week.

## AWARDS MADE UNDER LAWS IN EFFECT--Continued

State	Date of award	Occupation or industry	Class of employees	Amount of wages
Oregon-----	Oct. 14, 1919	Public housekeeping occupation, i. e., the work of waitresses in restaurants, hotel dining rooms, boarding houses, and all attendants employed at ice-cream and light-lunch stands, and steam table or counter work in cafeterias and delicatessens where freshly cooked foods are served; and the work of chambermaids in hotels and lodging houses and boarding houses, and the work of janitresses, and car cleaners, and of kitchen workers in hotels and restaurants, and elevator operators between the hours of 7 a. m. and 11 p. m. A retail candy department conducted in connection with an ice-cream, soft-drink, or light-lunch counter, or with a restaurant.	Women: Experienced..... Inexperienced.....	\$13.20 per week. \$9 per week.
		Office occupation, i. e., the work of those employed as stenographers, bookkeepers, typists, filing clerks, billing clerks, cashiers, checkers, invoicers, comptometer operators, auditors, attendants in physicians' and dentists' offices, and all kinds of clerical work.	Women: Experienced..... Inexperienced.....	\$60 per month. \$9 per week.
		Packing, drying, preserving, canning perishable fruits or vegetables.	Women: Experienced..... Inexperienced.....	\$0.27½ per hour. \$0.22 per hour.
South Dakota			Experienced women.....	\$12 per week.
Washington....	Oct. 4, 1921	Public housekeeping, i. e., linen room girls, chambermaids, cleaners, kitchen girls, dishwashers, pantry girls, pantry servers, waitresses, counter girls, bus girls, elevator operators, janitresses, laundry workers (except where a commercial laundry is operated), and any other occupation which would properly be classified under public housekeeping. The establishments shall include hotels, rooming houses, boarding houses, restaurants, cafes, cafeterias, lunch rooms, tea rooms, apartment houses, hospitals (not nurses), philanthropic institutions, and any other which may be properly classified under this industry.	Females over 18 years of age..... Minors.....	\$14.50 per week; \$2.50 per day; \$0.35 per hour. \$12 per week.
	Dec. 14, 1921	Laundry, dry-cleaning or dye works occupations, trade or industry.	Females over 18 years of age.	\$13.20 per week.



## AWARDS MADE UNDER LAWS IN EFFECT—Continued

State	Date of award	Occupation or industry	Class of employees	Amount of wages
Washington...	Dec. 4, 1921...	Telephone or telegraph lines or in any public occupation other than public housekeeping, laundry, dry-cleaning and dye works, mercantile and manufacturing.	Females over 18 year of age.	\$13.20 per week.
	Dec. 31, 1921	Mercantile establishments.	...do.....	Do.
	Jan. 22, 1922	Manufacturing occupations, trades and industries.	Women: Experienced..... Inexperienced.....	Do, \$9.00 per week.
	Oct. 27, 1922	Mercantile, manufacturing, printing, laundering, or dye works establishments, sign painting, machine or repair shop, or parcel-delivery service, or any other industry other than public housekeeping occupation, stenographer, bookkeeper, typist, billing clerks, filing clerks, cashier, checker, invoiceer, comptometer operator, or any clerical office work, including assistants and helpers in doctors' and dentists' offices; any occupation, trade, or industry not mentioned above.	Minors.....	Do,
Wisconsin.....	Aug. 1, 1921	Any occupation, trade, or industry. <i>Exceptions:</i> Seasonal industries.	Minors over 17 years: Experienced— In cities of 5,000 or more. In cities under 5,000. Inexperienced.....	\$0.25 per hour. \$0.22 per hour. \$0.16 per hour.
			All others: Experienced..... Inexperienced.....	\$0.20 per hour. \$0.16 per hour.
	1926.....	Seasonal industries.....	Minors: In cities of 5,000 or more. In cities under 5,000.	\$0.25 per hour. \$0.22 per hour.
	...do.....	...do.....	Adult females: In cities of 5,000 or more. In cities under 5,000.	\$0.25 per hour. \$0.22 per hour.

# INDUSTRIAL ACCIDENTS AND DISEASES

## Deaths from Lead Poisoning, 1925 to 1927

A STATISTICAL study of deaths from lead poisoning in the United States, by Dr. Frederick L. Hoffman, published as Bulletin No. 488, of the Bureau of Labor Statistics, is a continuation of an earlier study published in 1929 which showed that a gradual reduction in the deaths from chronic lead poisoning had been taking place. The present bulletin covers the three-year period, 1925-1927, and its figures reflect a further decline in lead poisoning as measured by the death rate.

The actual number of deaths recorded in the United States registration area during the period were, respectively, 142 in 1925, 144 in 1926, and 135 in 1927. As in the earlier study, painters led all the other occupational groups in the number of deaths, with 216, or more than half the total number, occurring in this occupation. Among the other occupational groups, metal workers and lead workers combined had 35 deaths; laborers, 35; and printers, 12; while electric storage battery workers, paint makers, miners, plumbers, and other occupations in which there is exposure to lead had fewer than 10 cases each. The group of laborers represents many employments connected with lead-using industries in which unskilled manual labor is required to a considerable extent. The small number of deaths in the electric storage battery industry (5) is regarded as surprising in view of the extensive exposure to the lead hazard in the industry, but it is explained on the ground that lead poisoning in serious form in the industry is very rare, while lead absorption is extremely common. The fact that only one death from lead poisoning in the pottery industry is recorded during the three-year period is regarded as evidence of the effectiveness of the far-reaching sanitary reforms introduced into the American potteries during recent years.

Other deaths reported under occupations such as farmers, with 13 deaths, and commercial, with 9 deaths, are regarded as nonindustrial, although in the case of farmers there is a suspicion of lead painting being carried on privately, leading to lead infection. Among the cases of nonindustrial poisoning were 13 cases among women and 10 cases among children. The deaths among women were due chiefly to the absorption of lead from drinking water which had passed through lead pipes, while the children's deaths were in most cases the result of eating paint from cribs or toys.

While fatalities from lead poisoning are shown by the report to have decreased, an increase in the number of cases of temporary disability caused by lead poisoning is shown by data regarding compensation cases in New York State for the two years 1925-26 and 1926-27. The number of compensated cases increased from 213 in the year ending June 30, 1926, to 243 in the following year, the major number of cases occurring in the manufacture of electric storage batteries.

A table is included in the report showing the increase in the production and use of lead pigments in the years 1917 to 1927. There was a

very considerable increase in all these products (except blue lead) during this period, although there was a slight decline in the production of red lead and litharge in 1927 as compared with 1926. As building construction involving painting indoors and outdoors has been maintained at a higher level in the past few years than formerly, and as the production of lead pigments has been so much greater, the actual decline in industrial lead poisoning can not be attributed, therefore, to any falling off in the manufacture and use of the various lead products.

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### **Eighteenth Annual Safety Congress**

**M**ARKED by an increase of approximately 15 per cent in registration of delegates and in total attendance as compared with the records for 1928 at New York City, the eighteenth annual safety congress of the National Safety Council closed a most successful five-day session at Chicago on October 4. Over 6,000 delegates from all sections of the United States and from parts of Canada, representing more than a score of industry groups, were in attendance upon the 100-odd general and sectional meetings and luncheons, at which all phases of the safety movement and accident prevention in industry, in the home, and on the streets and highways of the country were discussed from all angles in a most exhaustive and comprehensive manner by approximately 350 different speakers.

A measure of the interest manifested in the work of the safety council is indicated by the fact that this year the number of sectional meetings was materially increased because of the lack of sufficient opportunity for considering and discussing important safety problems made apparent at the session of the congress held last year in New York City. Particularly is this true of the constantly growing problem of public safety involving the streets and highways. This fact was recognized by those delegates most vitally interested in public safety, by the passage of a resolution requesting the board of directors of the council to consider the feasibility of organizing a new division of public safety to be known as the "Street and highway traffic section."

The National Safety Council, as shown by the annual address of the retiring president, Mr. Henry A. Reninger, now has a membership of 5,200, representing approximately 10,000,000 workers in more than 20 industries. The work of the council is carried on by a board of directors, an executive committee, and a staff of 103 persons, with an annual budget of about \$850,000.

It was pointed out that the national death rate from accidents is 5 per cent lower than it was 10 years ago, and would be almost 20 per cent lower were it not for the great increase in traffic accidents in recent years. The annual increase in the number of traffic accidents constitutes one of the greatest problems the council has to face. To carry on its work of education, the safety council has made plans for the expansion of every department of its activities. More educational material, a larger staff, branch offices in every State, trained speakers to stimulate interest in safety work, more comprehensive studies of the causes of accidents, and engineering researches leading to the compilation of recommendations applicable to every industry are some of the lines along which the council intends to develop its effectiveness.



Realizing the necessity of some aggressive activity to combat the hazards of industry, of the home, and of the streets and highways, the delegates unanimously adopted the following resolution at the first general session of the congress held on the opening day:

Whereas, 96,000 met death through accidents in the United States last year, this most alarming total comprising 27,500 automobile fatalities, 24,000 deaths through home accidents, 24,000 industrial fatalities, more than 20,000 accidental deaths in public places other than on streets and highways, and nearly 10,000,000 nonfatal accidents; and

Whereas, this reckless waste of human life and limb results in untold suffering, sorrow, and destitution and represents an economic loss of approximately \$3,200,000,000; and

Whereas, this annual carnage is a sad commentary on the peace-time civilization of a Government founded on principles of justice and nourished on well-defined traditions of humanitarianism, fair play, and protection for the weak; and

Whereas, the national accident problem is one that demands most serious and earnest consideration, not only by our Nation's leaders, but by our entire citizenship; therefore be it

*Resolved*, That the members of the National Safety Council and all others present at the eighteenth annual safety congress do hereby pledge ourselves to continue our fight against accidents with increasing energies and inspired interest during the coming year; and we respectfully urge that concentration of safety-council efforts be carried out along the following specific lines:

1. *Public safety*.—A solution of the automobile-accident problem, at present the most alarming problem of safety; the elimination of unfit and reckless motor-vehicle operators through the adoption of a drivers' license law by every State; uniform traffic laws for all States and cities; standard traffic signs and signals; standard accident-reporting systems; necessary street and highway improvements in the interest of safety; enforcement of and obedience to traffic laws; a recognition of the rights of others on the highway, whether pedestrians or drivers, based on the principle of the Golden Rule; the establishment of community safety councils in all American cities.

2. *Industrial safety*.—Regular and complete safety inspection in all industries, large and small; followed by prompt application of approved remedial measures; the safeguarding of all dangerous mechanical equipment and the constant use of such devices; the revision of hazardous manufacturing processes; continuous safety education throughout all industry; full cooperation with the National Safety Council and its affiliated community councils in carrying on industrial safety.

3. *Education*.—Let education be the keynote of the coming year, that the lessons and well-defined principles of safety be firmly implanted in every home and school throughout our Nation; let the youth of to-day be given opportunity for a full understanding and appreciation of the real meaning of safety in order that the citizens of to-morrow may enjoy the many blessings it bestows.

The following officers were elected to carry on the work of the safety council for the ensuing year:

President, C. E. Pettibone, American Mutual Liability Insurance Co., Boston.

Vice president, industrial safety, C. L. Close, United States Steel Corporation, New York.

Vice president, public relations, C. E. Hill, New York Central Lines, New York.

Vice president, public safety, Miller McClintock, Harvard University, Cambridge, Mass.

Vice president, territorial councils, George Opp, Detroit Edison Co., Detroit.

Vice president, finance, C. W. Bergquist, Western Electric Co., Chicago.

Vice president, engineering, Earl F. Blank, Jones & Laughlin, Pittsburgh.

Vice president, membership, G. T. Hellmuth, Chicago, North Shore & Milwaukee Railroad Co., Chicago.

Vice president, education, A. W. Whitney, National Bureau of Casualty & Surety Underwriters, New York.

Vice president, health, Dr. C. E. A. Winslow, Yale University, New Haven, Conn.

Treasurer, J. I. Banash, Fonda Tolsted Co., Chicago.

Managing director, W. H. Cameron, National Safety Council, Chicago.

Directors elected for the coming year include the following, the first three being new members of the board:

H. B. Flowers, president New Orleans Safety Council, New Orleans, La.  
 T. W. Bachus, vice president and general manager Hercules Powder Co.,  
 Wilmington, Del.  
 Paxton Mendelssohn, philanthropist, Detroit, Mich.  
 L. A. DeBlois, New York, N. Y.  
 G. T. Hellmuth, Chicago, Ill.  
 Miller McClintock, Massachusetts.  
 W. A. McGonagle, Minnesota.  
 John A. Oartel, Pittsburgh, Pa.  
 C. E. Pettibone, Boston, Mass.  
 Henry A. Reninger, Allentown, Pa.  
 Dr. A. D. Risteen, Hartford, Conn.  
 C. B. Scott, Chicago, Ill.  
 H. M. Webber, Chicago, Ill.  
 A. W. Whitney, New York, N. Y.  
 W. H. Winans, New York, N. Y.

### Industrial Accidents in Estonia in 1927

THE number of the workers insured against accidents on January 1, each year of the period 1922 to 1928, and the number of accidents were as follows:<sup>1</sup>

TABLE 1.—NUMBER OF WORKERS INSURED AND NUMBER OF ACCIDENTS, JANUARY 1, 1922 TO 1928

Year	Number of establishments under insurance	Number of workers insured	Accidents	
			Number	Per 1,000 workers insured
1922.....	382	23, 224	2, 804	100. 0
1923.....	773	30, 688	4, 212	132. 1
1924.....	576	34, 054	3, 769	101. 2
1925.....	869	40, 495	4, 681	105. 2
1926.....	1, 133	45, 285	5, 512	118. 9
1927.....	1, 259	47, 413	5, 551	121. 6
1928.....	1, 251	46, 136	.....	.....

Table 2 shows industrial accidents by industries and occupations.

TABLE 2.—INDUSTRIAL ACCIDENTS BY INDUSTRIES AND OCCUPATIONS, 1926 AND 1927

Industry or occupation group	Average number of insured workers		Number of accidents		Number of accidents per 1,000 insured workers	
	1926	1927	1926	1927	1926	1927
Quarries and mines.....	4, 393	4, 448	900	926	225. 4	208. 2
Stone and earthen works.....	2, 165	2, 271	320	381	147. 8	167. 8
Metal.....	4, 197	3, 351	510	622	121. 5	185. 6
Chemical.....	733	1, 105	61	92	83. 2	83. 3
Leather.....	895	730	47	41	52. 5	56. 2
Textile.....	8, 936	9, 838	765	858	85. 6	87. 2
Woodworking.....	8, 496	8, 132	1, 514	1, 434	178. 2	176. 3
Paper.....	2, 380	2, 373	390	371	163. 9	156. 3
Polygraphic.....	1, 137	1, 410	24	41	21. 1	29. 1
Food, drink, etc.....	4, 311	4, 276	262	323	60. 8	75. 5
Clothing.....	693	751	18	25	26. 0	33. 3
Building.....	4, 530	4, 011	170	249	37. 5	62. 1
Electrical, gas, and water works.....	1, 077	1, 052	42	49	39. 0	46. 6
Cleaning and laundry.....	290	248	7	4	24. 1	16. 1
Transportation.....	910	1, 784	121	135	133. 0	75. 7
Total.....	45, 143	45, 780	5, 241	5, 551	116. 1	121. 6

<sup>1</sup> Estonia. Riigi Statistika Keskbüroo. Eesti Statistika, Tallinn, September, 1929, pp. 509-512.

The main causes of industrial accidents in 1927 are shown below.

	Per cent of all accidents
Falls of worker.....	11.8
Stumbling over objects.....	20.2
Falls of objects.....	18.7
Handling objects without tools.....	1.2
Hand tools.....	4.8

The results of the industrial accidents are shown by the following figures:

TABLE 3.—NUMBER AND PER CENT OF ACCIDENTS, BY RESULT, 1922 TO 1927

Result	1922	1923	1924	1925	1926	1927
Permanent partial disability cases.....	140	160	190	250	336	236
Total permanent disability cases.....	2	3	2	1		
Deaths.....	10	9	8	20	16	20
Per cent of total accidents resulting in—						
Permanent partial disability.....	5.0	3.8	5.0	5.3	6.1	4.6
Total permanent disability.....	.07	.07	.05	.02		
Death.....	.36	.21	.21	.43	.29	.36
Cases per 1,000 workers insured:						
Permanent partial disability.....	5.0	5.0	5.1	5.6	7.2	5.6
Total permanent disability.....	.07	.09	.05	.02		
Death.....	.36	.28	.21	.45	.34	.44

### Industrial Accidents in Latvia, 1928-29

THE following figures show the total number of industrial accidents and the number which resulted in death from March, 1928, to July, 1929:<sup>1</sup>

TOTAL NUMBER OF ACCIDENTS AND NUMBER RESULTING IN DEATH IN LATVIA, MARCH, 1928, TO JULY, 1929, BY MONTHS

Year and month	Number of accidents	Number of accidents resulting in death	Year and month	Number of accidents	Number of accidents resulting in death
1928:			1929:		
March.....	1,505	8	January.....	1,509	5
April.....	1,165	5	February.....	1,712	4
May.....	1,451	4	March.....	1,650	10
June.....	1,637	3	April.....	1,810	9
July.....	2,301	4	May.....	1,979	5
August.....	2,170	12	June.....	2,394	2
September.....	1,959	6	July.....	2,946	12
October.....	1,966	5			
November.....	1,896	14			
December.....	1,670	6			

<sup>1</sup> Latvia. Valsts Statistiskā Pārvalde. Mēneša Biljetens, Riga, August, 1929, p. 368.



# HEALTH AND INDUSTRIAL HYGIENE

## Economic Status and the Incidence of Illness<sup>1</sup>

A REPORT recently issued by the United States Public Health Service, which deals with the relation of sickness incidence to economic status, is based on the morbidity study made in Hagerstown, Md., in 1921 and subsequent years.

Approximately 1,800 households were visited and classified as to their economic status and this classification was followed subsequently in recording the illnesses occurring in these families over a period of 28 months. While the classification was admittedly a rough one, the range of income included the richest as well as the poorest families in the community and was regarded, therefore, as sufficiently accurate. In the rating of families as to economic standing there was no attempt at classification by the actual income but certain observations were made, such as the number of rooms occupied by the family, sanitary conditions, and the regularity or irregularity of the milk supply. It was found that in place of five economic categories the families could be grouped in three, as in either extreme class—the well-to-do and the very poor—the numbers were so small that they could be combined, respectively, with the groups classed as comfortable and as poor.

At the time of the preliminary survey in December, 1921, an inquiry was made as to the prevalence of sickness in the individual households. The frequency of cases in these households is shown for each of the three economic classes in Table 1:

TABLE 1.—SICKNESS PREVALENCE AMONG 7,524 WHITE PERSONS CLASSIFIED ACCORDING TO FAMILY ECONOMIC STATUS, HAGERSTOWN, MD., DECEMBER, 1921

Economic status	Number of persons	Number of cases	Cases of sickness per 1,000 persons
Well-to-do and comfortable.....	808	26	32.2
Moderate.....	3,400	128	37.6
Poor and very poor.....	3,316	133	40.1

Table 1 shows that the prevalence of illness is lowest among the group rated as well-to-do and comfortable and that it increases as the economic status declines. The ratio of the sickness-prevalence rate among the group classified as "poor and very poor" to that for the "well-to-do and comfortable" group was 1.25 to 1 and for the "moderate" group was 1.17 to 1, but it should be remembered, the report states, that this prevalence rate includes relatively more cases of sickness of long duration than does an attack or incidence rate.

<sup>1</sup> United States. Treasury Department. Public Health Service. Public Health Reports, July 26, 1929. "Economic status and the incidence of illness," by Edgar Sydenstricker.

The analysis of the attack or incidence rates in relation to age shows that the age distributions of the different economic classes differed decidedly. The data upon which these rates are based include the "years of life observed" for cases of illness occurring during the period December 1, 1921, to March 31, 1924, subdivided according to age for each of the three economic classes, and the number of illnesses, classified according to cause, as recorded for each age-economic group. The age distributions of the three economic groups showed that the upper economic group contained relatively more middle-aged and old persons and fewer children than the poorer group and these differences were taken into account, therefore, in correcting the crude rates for age. Table 2 shows the annual crude sickness rate per thousand and the rate corrected for age, of the three economic groups for the period December 1, 1921, to March 31, 1924. While the differences are not great, owing, probably, to the absence of sharply differentiated economic extremes, the rates show a consistent association of illness with economic status, the ratio for the moderate income group being 108 as compared with the well-to-do and comfortable and 112 for the poor and very poor.

TABLE 2.—SICKNESS RATE CLASSIFIED ACCORDING TO FAMILY ECONOMIC STATUS

Economic status	Annual rate per 1,000	
	Crude	Corrected for age
Well-to-do and comfortable.....	949	991
Moderate.....	1,042	1,068
Poor and very poor.....	1,144	1,113

A comparison of the corrected differential rates for certain kinds or causes of illness shows that there was no consistent association between the kind of sickness and poor economic status. The report states that "an association is indicated, in a general way, for respiratory illness (specifically for influenza or grippe and for colds, but not for diseases of the pharynx and larynx); rheumatism, headache, as well as other nervous conditions; and for accidents. The commoner infectious diseases—measles, whooping cough, and chicken pox—were not respecters of persons, nor were diseases and conditions of the eyes and ears, and of the circulatory, digestive, and eliminatory systems." The association of a greater amount of illness with poorer economic condition was found to hold true, however, only for the adult ages, and among children precisely the contrary condition was present. No very satisfactory reason is given for this condition, but it is suggested that there is a possibility that there was better reporting of minor ailments by the well-to-do parents and that in regard to the infectious diseases there was perhaps a greater opportunity for the children in this class to contract diseases that happened to be epidemic.

The proportion of all cases attended by physicians was decidedly higher among the families with the better economic standing, although for the so-called general diseases, diseases of the nervous system, diseases of the ear and mastoid process, nonvenereal diseases of the

genito-urinary system, and diseases of the bones and organs of locomotion there was practically no difference in the attendance of physicians among the well-to-do and the poorer families, the reason given for the apparent equality being that most of these diseases could only have been diagnosed by physicians and, therefore, could not otherwise have been classified. Diseases of the respiratory system, infectious diseases, diseases of the eyes, circulatory system, digestive system, and skin received a relatively greater amount of medical attention among families of the well-to-do and comfortable classes, and the rate for operations was also decidedly higher among the richer classes. It is clear that the opportunity for better diagnosis among the richer classes has an effect upon differential morbidity rates, but it is difficult to evaluate precisely the extent of this influence.

In conclusion, however, the report states that two facts remain fairly clear—"one is that the illness rate as observed was higher for the poor than for those economically better off; the other is that, in general, those families which were definitely above the average of this community in economic condition had medical attention to a considerably greater extent than the remainder of the population."



## WORKMEN'S COMPENSATION

### Meeting of International Association of Industrial Accident Boards and Commissions in 1929

**T**HE sixteenth annual convention of the International Association of Industrial Accident Boards and Commissions was held at Buffalo, N. Y., October 8-11, 1929. The convention was attended by delegates from 25 States, the District of Columbia, and the Provinces of Ontario, Nova Scotia, and Quebec. During the 4-day session 305 persons registered.

The convention was formally opened by Frances Perkins, industrial commissioner of New York and president of the association. During this session an explanation of figures on relative benefits under different State laws was given by A. Z. Skelding of the National Council on Workmen's Compensation Insurance; and a general review of workmen's compensation legislation for 1929, by Charles F. Sharkey, of the United States Bureau of Labor Statistics.<sup>1</sup>

At the afternoon session the following papers were read: On the subjects "A Study of Silicosis in Rock Drillers," by Dr. A. J. Lanza, assistant medical director, Metropolitan Life Insurance Co.; "Occupational Diseases and Workmen's Compensation," by Dr. May R. Mayers, New York Department of Labor; and "Medical Care and Cost," by Fred M. Wilcox, chairman of the Industrial Commission of Wisconsin. A general discussion followed the reading of the last two papers.

An entire session was devoted to a demonstration of clinic cases of various types of disability under the workmen's compensation act, by Dr. Raymond G. Bell, of the Department of Labor of New York, while another session was given over to the subject of accident prevention, the papers presented on the latter including two dealing with "No-Accident Campaigns," by Frank E. Redmond, of the Associated Industries of New York State, and by W. E. Yeomans, of the Merchants' Association of New York City; one on "Accident Prevention Campaign Among State Unions," by Thomas J. Curtis, vice president, New York State Federation of Labor; "Accidents and Health Hazards in Chemical Industries," by W. J. Burke, chemical engineer, New York Department of Labor; and "Accidents and Health Hazards in Chemical Industries," by J. A. Burckel, vice president Du Pont Viscoloid Co., New York City.

The subject of lump-sum payments received considerable attention. Papers on this subject included one on "Accidents Resulting in No Lost Time," by Walter O. Stack, president Industrial Accident Board of Delaware; "Lump Sum Settlements," by Dr. L. W. Hatch, New York State Industrial Board; "How to Investigate Proposed

<sup>1</sup> The latter paper is given in full on p. 50 of this issue.

Lump Sum Settlements," by Rufus Jarnegan, New York State Rehabilitation Bureau; "Second Injuries Fund," by William M. Knerr, chairman Industrial Commission of Utah; "Should Hearings be Held in all Cases When Disability Extends Beyond One Week?" by V. A. Zimmer, Department of Labor of New York; "Should the Compensation Board Have in Its Employ a Staff Physician or Physicians?" by H. M. Stanley, chairman, Industrial Commission of Georgia; "Who Should be Considered Compensation Dependents, and What, If Any, Should be the Limitation of Compensation Dependents," by F. A. Duxbury, Industrial Commission of Minnesota.

During the morning session of Thursday, October 10, the program was divided into three sections upon different subjects, which ran concurrently. It was the first time that the association had subdivided a session and keen interest was shown by each of the groups in its respective subject. Section A dealt with the problems of exclusive State fund jurisdictions, presented by Mr. Fred W. Armstrong, Workmen's Compensation Board of Nova Scotia. Section B had for consideration a paper on the subject of "Problems of Competitive State Fund States," presented by Lawrence E. Worstell, chairman Industrial Accident Board of Idaho. Section C considered "Problems of Private Insurance States," presented by Walter O. Stack, president Industrial Accident Board of Delaware. General discussion followed the reading of the papers.

At the afternoon session a paper was read by Mr. Parke P. Deans, industrial commissioner of Virginia, on the subject of "Coal Mining and Workmen's Compensation." The papers prepared by Mr. Will J. French, director Department of Industrial Relations of California, on "The Age Factor in the Computation of Compensation for Permanent Disability" and on "Occupational Disease Compensation in California" were not read but were incorporated into the minutes of the convention.

On the morning of the last day of the convention, Friday, October 11, committee reports were read. Resolutions were adopted recommending to the several States and Provinces the inclusion of all occupational injuries and disabilities in their compensation laws. The medical committee of the association was instructed to formulate a detailed curriculum for medical colleges relating to the subject of industrial medical science; for this work the sum of \$500 was authorized.

The following officers were elected for the ensuing year:

Walter O. Stack, president, president of industrial accident board, Delaware.

Parke P. Deans, vice president, industrial commissioner of Virginia.

Ethelbert Stewart, secretary-treasurer, Commissioner of Labor Statistics, Washington, D. C.

Executive committee: Walter O. Stack, Delaware; Parke P. Deans, Virginia; Ethelbert Stewart, Washington, D. C.; W. H. Horner, Pennsylvania; William W. Kennard, Massachusetts; Wellington T. Leonard, Ohio; Frances Perkins, New York; Mrs. F. L. Roblin, Oklahoma; and Robert Taschereau, Quebec.

The 1930 meeting will be held in Wilmington, Del.

The proceedings of the sixteenth annual convention will be published later in bulletin form by the United States Bureau of Labor Statistics.

## General Review of Workmen's Compensation Legislation for 1929<sup>1</sup>

**T**HE past legislative year has been an active one in the field of workmen's compensation. Of the 44 States having compensation laws, all met in regular session in 1929 with the exception of four (Alabama, Kentucky, Louisiana, and Virginia). Of those States meeting in regular session, 35 acted on the subject of workmen's compensation. Regular sessions were held but no action taken in five States having such laws (Arizona, Nevada, New Hampshire, Tennessee, and Utah) and in three States which have not yet passed any legislation on the subject (Arkansas, Florida, and South Carolina). The Legislature of Mississippi, the fourth State without a compensation law, did not convene in 1929. In addition to their regular sessions several of the States met in extra session, but of those States from which legislation is available none acted upon the subject of compensation at the special session.

The outstanding progress to report since the last meeting, at Paterson, N. J., is the enactment of a workmen's compensation law in North Carolina. This act became effective on July 1 of this year. In Arizona the 1929 legislature passed a bill amending the law as advocated by the industrial commission, but it was vetoed by the governor. Arkansas again attempted to enact a workmen's compensation law, but the measure failed to pass. The State, however, did enact a law during the legislative session, providing compensation for accidental injuries or death suffered by employees of the State highway commission. The Maine act was completely revised and reenacted, as was also the act of New Mexico, while a new draft of an act in New Hampshire was defeated. In Oregon the 1929 legislature authorized the appointment of a committee to study the needs of the workmen's compensation law, and to report its recommendations to the governor.

The Congress of the United States has also been in session since our last meeting, but has made no change in the compensation already extended to Federal employees, longshoremen, and harbor workers, and private employees in the District of Columbia.

Naturally it would be impossible in the brief time at my disposal to go into the details of all the amendments passed this year by the various State legislatures. The tendency has been, however, to strengthen the existing laws, to enlarge their scope, and to improve their administration. Fourteen States amended their coverage provisions (Delaware, Idaho, Illinois, Indiana, Maine, Maryland, New Mexico, New York, South Dakota, Texas, Vermont, West Virginia, Wisconsin, and Wyoming). A tendency was shown in New Hampshire and Tennessee toward the possible extension of the coverage of the workmen's compensation system, by the passage of an act authorizing the payment of compensation for injuries to State employees and those engaged on highways and public works, in amounts not exceeding those provided in the State workmen's compensation act.

The waiting period was decreased in some States, notably in New Mexico, where the period has been reduced to seven days. Other States acting on the subject included Connecticut, Illinois, Maine, and Montana.

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<sup>1</sup> Address delivered at meeting of International Association of Industrial Accident Boards and Commissions at Buffalo, N. Y., October 8, 1929.



Liberalization of benefits received the attention of 20 States, and was effected by raising the minimum or maximum weekly payments, by increasing the maximum amount in death cases and the number of weeks for specified injuries, by a more liberal allowance in the case of medical and surgical aid or burial expenses, and by other less direct methods.

Oregon enacted a provision to cooperate in the administration of the Federal longshoremen's act by authorizing the State fund to insure maritime employers under the act.

In Pennsylvania extraterritorial effect is now given to the law, affording protection to employees temporarily performing services outside the State.

The time of notice of injury and claim for compensation was extended or considered in Idaho, Illinois, Maine, Massachusetts, Montana, New Mexico, and Wyoming.

In Minnesota a nonresident alien dependent may now designate some person other than his consular representative to receive compensation for him.

In Kansas the administration of the act is transferred from the public service commission to the newly created commission of labor and industry.

The Kansas Supreme Court rendered a decision February 9, 1929, holding that since the act is elective, contractual in its nature, there was no provision made for an appeal from the District Court to the Supreme Court on questions of law; the legislature therefore amended the act permitting such an appeal. In Nebraska an appeal from a decision of the commissioner must be taken to the district court of the county in which the accident occurred unless otherwise agreed upon by the parties, while in Montana an appeal to the district court of the county of the accident may now be taken by either party instead of by the employee only, as formerly. Appeals from the court of common pleas in Pennsylvania may now be taken only to the Superior Court.

The subject of accident reporting received attention in several States, including Georgia, Indiana, New Mexico, and Oregon.

In Michigan double compensation is now assessed in the case of the illegal employment of a minor under 18 years of age.

Two States (New York and Ohio) enlarged the list of occupational diseases. The Ohio act added manganese dioxide and radium poisoning, and two diseases peculiar to miners. In New York an act was passed during the early part of the legislative session extending the list of occupational diseases to include radium poisoning in hospitals or laboratories only. This act became effective March 6, 1929. Subsequently, however, another bill adding 11 new diseases was drawn by the industrial survey commission, which had the indorsement of the department of labor. When the bill was about due for final passage, it was hastily withdrawn, returned to the committee, and amended by striking out all but four of the diseases, including radium poisoning. The industrial survey commission did not approve of this alteration. Governor Roosevelt, in signing the bill, which became effective October 1, 1929, took occasion to point out the inadequacy of the law as enacted by the legislature.

The present list of occupational diseases adds chrome poisoning and poisoning by any sulphide, besides the diseases, newly included,

of methylchloride poisoning, poisoning from carbon monoxide, poisoning from sulphuric, hydrochloric, or hydrofluoric acid, and respiratory, gastro-intestinal, or physiological nerve and eye disorders due to contact with petroleum products. It appears, however, that a court construction will be necessary to determine whether or not the act giving relief to hospital or laboratory employees receiving injuries from radium, radium emanations, or X ray, will be superseded and annulled from and after October 1, 1929, by the subsequent act of the legislature.

Four Territorial legislatures also met in regular session. Alaska reenacted and made several changes in the compensation act, the principal one being the extension of the schedule of partial disability cases to include compensation of \$720 for loss of hearing in one ear. Hawaii and Porto Rico made several changes of minor importance, while the Philippine Legislature added nothing new to the act.

Of the eight Canadian Provinces having compensation laws, the 1929 legislatures of Alberta, Nova Scotia, and Saskatchewan acted on the subject of workmen's compensation, while British Columbia, Manitoba, New Brunswick, Ontario, and Quebec did not. A special committee, however, was appointed by the provincial government of Manitoba to investigate the subject of workmen's compensation in the Province. In Ontario, although no amendments were passed by the legislature, the workmen's compensation board passed certain regulations approved by order-in-council having the effect of an amendment, one of which was the addition of chrome poisoning to the list of industrial diseases. Saskatchewan passed a workmen's compensation act similar in many respects to the existing Ontario act.

The Alberta act was amended by providing a right of action to a workman in case of accident, against some person other than his employer.

Nova Scotia increased the amount allowed for burial expenses from \$75 to \$100. The maximum amount was increased from 55 to 60 per cent of average earnings in death and permanent total or partial disability cases. Other less important changes were also made in the Alberta and Nova Scotia acts.

In general it can be said, after a careful examination of the actions of the 35 States and of the Territorial and Canadian legislatures which took up the subject of workmen's compensation, that for the most part the amendments enacted into law were beneficial, that the acts have been enlarged and strengthened, and that the general tendency was toward the improvement of the compensation laws.

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### Amendments to Workmen's Compensation Laws of Various States in 1929

**I**N PREVIOUS issues of the Monthly Labor Review <sup>1</sup> amendments passed by the 1929 State legislatures and affecting the workmen's compensation laws were analyzed.

Legislation for the jurisdictions of Alaska, Connecticut, Hawaii, Illinois, Oklahoma, and Oregon has since been received and is briefly reviewed below.

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<sup>1</sup> May, 1929, pp. 135, 136; August, 1929, pp. 85-88; September, 1929, pp. 89, 90; October, 1929, pp. 73-77.



## Alaska

THE entire workmen's compensation act of Alaska was reenacted and several changes made, by chapter 25. The principal change was the enlargement of the schedule of partial disability cases to include the loss of hearing in one ear, for which the award is \$720 (loss of hearing in both ears constitutes total and permanent disability); and the specific definition of the terms "child" or "children," "widower," and "married."

## Connecticut

Two acts were passed by the 1929 Legislature of Connecticut amending the workmen's compensation act. Several changes were made in the act by chapter 242. For the loss or loss of use of an arm the period of compensation is extended from 208 to 225 weeks. Hereafter payment will be made from the date of injury if the incapacity continues for a period of four weeks; formerly it was required that the disability must extend beyond that period. To be entitled to compensation for hernia the employee must now prove that the injury was accompanied by evidences of pain; it is not necessary to show that inability to work immediately followed the accident, but may be shown to have followed within one week. Before a modification of any award may be made, notice and hearing must be given.

A supplemental law (ch. 32) was passed providing that physicians' reports of occupational diseases shall not be admissible as evidence in workmen's compensation proceedings.

## Hawaii

THE only act in any way affecting the workmen's compensation law of Hawaii was chapter 227, which provides that at the time of issuance of a license to do business in the Territory a certificate from the industrial accident board must be filed, showing that the employer has insured his workmen's compensation risk.

## Illinois

THREE acts passed by the 1929 Illinois Legislature made several important changes in the workmen's compensation law (pp. 438, 439, 440-466).<sup>\*</sup> The compulsory coverage of the act is extended to include employees handling junk and salvage. (Sec. 3.) An employer may now elect by insuring with an authorized insurance carrier, and is bound until the expiration or cancellation of the policy. (Sec. 1.) The act excludes totally blind persons as employees. (Sec. 5.) Compensation to collateral heirs is payable only in the case of 50 per cent or more of total dependency, and then such proportion of a sum equal to four times the average annual earnings of the employee as such dependency bears to the total dependency, with a minimum of \$1,650 and a maximum of \$3,750. The payment into a special fund of the difference between the compensation paid and \$450 is no longer required.

In the case of three or more children under 16, where four times the average annual earnings are less than \$3,750, the amount is increased \$600 instead of \$450; the maximum amount is increased from \$4,450 to \$4,550 in the case of two children, and from \$4,550 to \$4,700 where there are three or more children. (Sec. 7.) As regards cases of injury not resulting in death several changes were



made in the law. The maximum weekly payment in total and partial disability cases is increased from \$14 to \$15, and from \$19 to \$20 in the case of an employee with four or more children under 16 years of age at the time of the injury. In specific injury cases the period of compensation is limited to 64 weeks. Compensation is paid for the loss of hearing and for loss or loss of use of certain members. A widow or lineal dependent is paid the balance of an award, in proportion to dependency, in cases where an employee has been injured and death follows from a cause other than the injury.

The waiting period has been changed so that compensation is paid from the day following the injury if incapacity continues for more than 30 days, instead of four weeks as formerly. (Sec. 8.) Medical examinations may be had either within or without the State, and where examination is made by the employee's surgeon a written report by the examining surgeon must be given to the employer.

The procedure was amended in several respects by sections 6, 8-F, 14, 16, 19-B, 19-F, 19-K. New provisions as to notice of injury and claim for compensation are made. (Sec. 24.) Payments must be made within two weeks after the interval for which compensation is payable. (Sec. 8-I.) Provisions relating to securing of insurance, especially as to the coverage of policies, were amended by section 26. Preference is given to awards over the unsecured debts of the employer except as to wages. (Sec. 21.) The duties of the secretary of the commission are enlarged, and authority is given to the commission to destroy obsolete papers on file for more than five years, providing no claim is pending. (Secs. 14, 17.)

#### Oklahoma

THE only legislation affecting the workmen's compensation law of Oklahoma was the act (ch. 30) providing that before the supreme court will entertain a motion to change an award, a bond must be filed securing the payment of the award.

#### Oregon

SEVERAL amendments were made to the workmen's compensation law of Oregon by the legislature of 1929.

A provision was enacted providing for cooperation in the administration of the Federal longshoremen's act by authorizing the State fund to insure maritime employers under the act. (Ch. 120.) The industrial accident fund created by the act was declared to be a trust fund, in which the State of Oregon has no proprietary interest. (Ch. 172.) Chapter 316 made several changes in the law: It is now made unlawful to rebate or to accept money deducted from employees' wages for hospital fees; records of employers and contractors must be available to the commission for inspection and records kept of all moneys collected and received. Penalties include a payment of ten times the amount accepted or given in rebates. Other penalties are also provided for violations of the act. Supplemental acts (chs. 136, 137) provide that contractors on public works must furnish a bond and promptly pay any amount due the State industrial accident fund.

Records of the commission, except pay rolls and confidential reports, are open to public inspection. (Ch. 286.)

A senate joint resolution (No. 10) was passed, authorizing a study to be made of the needs of the workmen's compensation law and requiring that a report be submitted to the governor, setting forth desirable changes, if any.

### Operations Under Workmen's Compensation Act in Wisconsin, 1928

THE Industrial Commission of Wisconsin, in its publication, Wisconsin Labor Statistics, Bulletin No. 20, September 5, 1929, published a table containing compensable cases closed in the calendar year 1928, a summary of which follows:

#### COMPENSATION CASES SETTLED DURING 1928, BY CAUSE AND BY NATURE OF INJURY

Cause of injury	Accidents resulting in—			Total number of accidents	Amount of indemnity paid	Medical aid paid in fee cases			Number of non-fee cases
	Death or permanent total disability	Permanent partial disability	Temporary disability			Number of cases	Total amount paid	Average per case	
Machinery.....	17	861	2,299	3,177	\$831,984	2,794	\$168,753	\$60	383
Hoisting apparatus.....	18	91	461	570	187,652	473	41,014	87	97
Railroad cars and engines.....	4	20	131	155	57,901	124	10,855	88	31
Mines and quarry cars and motors, also plant trucks on tracks.....	2	10	54	66	17,876	52	2,835	55	14
Automobiles and motorcycles.....	36	52	1,033	1,121	324,643	1,045	73,008	70	76
Animal-drawn vehicles.....	6	12	322	340	59,580	326	21,904	67	14
Dragging and skidding.....	7	125	132	132	13,857	131	10,422	80	1
Falling objects.....	18	74	1,034	1,126	244,977	962	62,865	65	164
In mines and quarries.....	2	6	23	31	21,390	24	2,747	114	7
Falling trees.....	11	8	199	218	44,426	204	25,783	126	14
Falls of persons.....	27	174	3,095	3,296	659,615	3,041	210,334	69	255
Stepping on or striking against objects.....	2	60	1,471	1,533	148,981	1,383	71,557	52	150
Hand tools.....	5	144	1,581	1,730	236,976	1,560	71,018	46	170
Hand trucks.....	1	19	435	455	53,782	365	20,155	55	90
Handling heavy objects.....	3	183	3,300	3,486	246,130	3,066	116,760	38	420
Piling or decking.....	1	1	27	28	3,167	26	2,198	85	2
Loading and unloading.....	1	44	619	664	55,728	578	22,812	39	86
Sharp or rough objects.....	3	82	1,381	1,466	93,998	1,327	52,200	39	139
Electricity.....	27	5	63	95	122,580	71	6,923	98	24
Explosives.....	14	11	63	88	77,558	73	7,637	105	15
Steam pressure apparatus.....	1	1	1	2	2,356	1	315	315	1
All other explosions.....	4	4	44	52	30,703	42	8,441	201	10
Hot and corrosive substances.....	11	13	734	758	87,826	672	33,799	50	86
Miscellaneous causes.....	10	60	764	834	179,062	747	47,423	63	87
Occupational diseases.....	10	5	380	395	83,093	347	15,070	43	48
Total.....	232	1,947	19,639	21,818	3,885,850	19,434	1,106,828	57	2,384
Occupational diseases:									
Metallic poisons.....			37	37	3,297	32	2,293	72	5
Toxic gases, vapors, fumes.....	4	1	29	34	27,449	30	1,943	65	4
Toxic fluids.....			124	124	7,200	106	3,276	31	18
Irritant dusts and fibers.....	3	1	58	62	16,374	60	2,586	43	2
Germs.....			26	26	1,457	22	950	43	4
Miscellaneous irritants.....	1		46	47	1,568	43	1,147	27	4
Air compression.....		1	4	5	4,791	5	223	45	
Extremes of humidity.....	1		7	8	8,018	8	293	37	
Extremes of temperature.....			19	19	647	17	359	21	2
Excessive light.....			3	3	179	2	73	37	1
Causing inflammation of joints, tendons, and muscles.....			23	23	2,140	15	969	65	8
Occupational diseases or hazards not otherwise classified.....	1	2	4	7	9,973	7	958	137	
Total.....	10	5	380	395	83,093	347	15,070	43	48

## LABOR LAWS AND COURT DECISIONS

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### Denial of Compensation to Employee Killed on Way to Work, in Utah

**T**HE Supreme Court of Utah in a recent decision upheld an order of the Industrial Commission of that State denying compensation to the widow of a deceased employee, on the ground that the injury resulting in death did not arise out of or in the course of the employment.

From the facts in the case it appeared that one H. C. Greer was employed as a foreman and carpenter at the Union Stockyards at Ogden, Utah. It was the duty and custom of Greer to keep the tools in a properly sharpened condition, and it was his practice to take the saws to his home at the end of the day's work, and there sharpen them and bring them back on the following morning. Returning to work shortly before 8 o'clock in the morning, and carrying a saw belonging to the company, Greer was struck by an automobile truck while crossing from the pedestrian's walk on a viaduct to accept a free ride to the place of employment, offered by a fellow workman. The single question in the case was whether the injury which resulted in the death of the employee arose out of or in the course of the employment. The widow contended that her husband was engaged in the company's business at the time of the accident, because of the fact that he was carrying the saw and returning it to the company's place of business after he had sharpened it at his home the night before.

The Industrial Commission of Utah, after a hearing, found that the widow had not proved a case and denied compensation.

The case was taken to the Supreme Court of Utah on appeal from the commission's finding. Cases were cited by both parties to support their contentions. The widow relied on a number of prior Utah decisions. The supreme court, however, said that these cases were not in point with the instant one, and in affirming the order of the industrial commission cited the authority of a California case (*London Guarantee & Acc. Co. v. Industrial Acc. Comm. et al.*, 190 Cal. 587, 213 Pac. 977).

In the California case a clear statement of the exceptions to the general rule as to whether an employee was covered by the act while traveling from his home to his place of business was made, as follows:

Exceptions to the general rule are cases where an employee, either in his employer's or his own time, is going to or from his place of employment on some substantial mission for his employer growing out of his employment. In such cases it is held that the employee is within the protection of the act. But the mission must be the major factor in the journey or movement, and not merely incidental thereto; that is to say, if incidental to the main purpose of going to or from the place of employment it would not bring such person under the protection of the act. If, on the other hand, the main purpose of going or coming was to perform some act arising out of his employment, he would be under the protection of the act although, incident to the performance of such duty, he might be going or coming from his home.



Holding the same rule to apply in the case under consideration the court said:

Under the facts in the instant case, it is clear that the deceased was not upon any special mission for his employer at the time of the accident. There was nothing that he was doing for his master at the time which exposed him to the perils of the street. He was merely going from his home to his place of employment. The fact that he was carrying the saw was merely incidental. The employee did not come within any of the exceptions to the general rule. \* \* \*

In this case the deceased was not injured while sharpening the saw at his home. The accident did not occur while he was actually engaged in the performance of a duty for the employer. The dangers of the street between his home and the stockyards were not incident to his employment, but were dangers common to all.

The order of the industrial commission was thereupon affirmed.  
(Greer v. Industrial Commission of Utah et al., 279 Pac. 900.)

# COOPERATION

## Development of Building and Loan Associations in 1928

IN A REPORT<sup>a</sup> made by the secretary of the United States League of Local Building and Loan Associations to the convention of that body in August, 1929, it is stated that for the past five years the building and loan associations have maintained an annual increase in assets of more than \$800,000,000. "This remarkable evidence of their rapid growth in so short a time is an achievement which has no parallel in the financial history of this country." According to the report, these institutions have achieved a "record of safety which is not equaled by any other class of financial institutions."

The table below, compiled from the report, shows the growth in membership, assets, and mortgage loans as compared with 1927:

DEVELOPMENT OF BUILDING AND LOAN ASSOCIATIONS IN 1928

State	Number of associations	Membership		Assets		Mortgage loans outstanding	
		1928	Increase over 1927	1928	Increase over 1927	1928	Increase over 1927
Alabama.....	42	38,750	<sup>1</sup> 15,950	\$27,797,944	\$6,552,912	\$24,318,425	<sup>(2)</sup>
Arizona.....	6	5,500	1,100	2,744,802	802,783	2,447,468	\$763,332
Arkansas.....	74	66,688	7,959	39,870,217	4,040,180	<sup>(3)</sup>	<sup>(3)</sup>
California.....	206	323,160	61,928	297,189,401	55,392,654	266,310,898	46,096,265
Colorado.....	67	131,528	11,897	49,553,846	7,077,200	<sup>(3)</sup>	<sup>(3)</sup>
Connecticut.....	39	30,808	<sup>1</sup> 13,696	22,589,054	1,974,639	20,978,101	1,810,478
Delaware.....	44	18,650	900	11,827,813	1,615,444	10,197,113	1,337,903
District of Columbia.....	22	68,543	4,775	63,363,948	6,172,282	60,222,013	6,029,730
Florida.....	71	16,000	<sup>1</sup> 12,500	21,603,363	<sup>1</sup> 19,236,917	17,500,795	<sup>1</sup> 17,622,028
Georgia.....	34	12,054	5,554	3,954,001	1,454,001	3,313,640	<sup>(2)</sup>
Idaho.....	13	6,300	1,600	3,795,742	1,056,990	3,412,094	941,389
Illinois.....	916	873,000	12,000	419,927,785	31,829,954	390,365,096	25,850,036
Indiana.....	402	440,168	35,647	298,282,407	24,042,303	270,981,555	21,814,246
Iowa.....	74	67,088	14,039	46,282,496	2,785,488	42,594,603	1,863,014
Kansas.....	151	211,820	17,620	126,114,205	8,134,697	105,611,662	4,910,508
Kentucky.....	155	154,700	12,800	97,438,412	11,928,494	95,313,114	11,805,178
Louisiana.....	105	193,359	2,709	186,892,047	12,073,820	174,862,061	11,620,851
Maine.....	36	28,673	<sup>1</sup> 507	20,981,542	1,432,537	19,842,888	1,113,762
Maryland.....	1,210	330,000	<sup>(2)</sup>	210,000,000	<sup>(2)</sup>	<sup>(2)</sup>	<sup>(3)</sup>
Massachusetts.....	226	512,714	15,494	516,138,388	38,133,241	480,109,722	32,438,003
Michigan.....	72	212,329	5,555	142,638,654	15,839,528	129,008,767	11,357,815
Minnesota.....	80	83,090	2,134	36,738,928	4,316,306	30,061,785	3,116,420
Mississippi.....	52	26,600	4,800	18,035,002	2,617,102	16,429,885	2,376,468
Missouri.....	241	241,680	12,375	179,628,005	19,854,458	160,104,264	15,996,272
Montana.....	26	44,500	3,000	18,384,866	2,047,358	16,072,136	1,714,709
Nebraska.....	84	250,000	14,419	161,398,928	6,185,367	137,500,496	<sup>1</sup> 891,277
Nevada.....	4	1,475	575	847,835	324,121	796,900	296,727
New Hampshire.....	28	16,483	39	11,502,362	1,104,931	11,000,311	979,228
New Jersey.....	1,561	1,250,000	83,020	1,032,429,060	<sup>1</sup> 146,261,555	971,081,756	130,240,655
New Mexico.....	18	7,600	450	4,172,351	338,861	3,593,275	391,261
New York.....	313	577,121	21,879	401,460,686	51,927,054	367,081,909	42,066,877
North Carolina.....	232	108,170	6,170	95,009,520	4,009,520	88,169,545	5,669,545
North Dakota.....	20	19,000	2,200	10,469,619	1,610,278	9,010,131	1,489,416

<sup>1</sup> Decrease.

<sup>2</sup> Included with "other States."

<sup>3</sup> No data.

<sup>4</sup> Figures estimated.

<sup>5</sup> June 30, 1927, to Dec. 31, 1928.

<sup>a</sup> United States League of Local Building and Loan Associations. Secretary's annual report [1928]. Cincinnati, 1929.

## DEVELOPMENT OF BUILDING AND LOAN ASSOCIATIONS IN 1928—Continued

State	Num- ber of asso- ciations	Membership		Assets		Mortgage loans outstand- ing	
		1928	Increase over 1927	1928	Increase over 1927	1928	Increase over 1927
Ohio.....	812	2,452,025	169,332	\$1,237,520,617	<sup>4</sup> \$202,091,500	\$1,110,090,000	\$169,817,654
Oklahoma.....	88	216,131	31,321	130,612,128	14,293,314	120,341,040	13,425,131
Oregon.....	37	50,700	6,000	24,968,215	3,054,558	22,000,000	3,898,112
Pennsylvania.....	4,272	1,753,253	122,851	1,340,056,344	94,068,391	1,250,000,000	129,450,581
Rhode Island.....	8	37,769	3,332	25,716,657	3,080,877	24,026,119	3,194,694
South Carolina <sup>1</sup> .....	145	30,000	2,000	24,000,000	1,000,000	( <sup>2</sup> )	( <sup>2</sup> )
South Dakota.....	23	12,679	4,974	6,240,941	743,926	5,406,355	871,355
Tennessee.....	39	19,950	5,175	12,363,630	3,236,521	11,293,052	2,919,964
Texas.....	162	165,780	20,400	113,034,389	20,402,112	96,047,589	11,055,514
Utah.....	24	127,026	34,105	45,652,812	8,400,951	40,288,018	7,620,062
Vermont.....	11	5,149	691	3,286,276	469,267	3,182,351	498,135
Virginia <sup>1</sup> .....	87	60,800	4,500	55,000,000	4,850,330	( <sup>2</sup> )	( <sup>2</sup> )
Washington.....	73	312,872	44,468	115,925,233	14,672,956	91,576,271	11,100,000
West Virginia.....	62	66,170	5,970	39,703,679	3,575,413	34,566,509	1,977,338
Wisconsin.....	186	296,973	35,288	251,619,119	34,055,126	242,564,784	31,595,774
Wyoming.....	13	21,077	<sup>1</sup> 5,046	11,271,058	<sup>1</sup> 1,806,395	10,115,956	( <sup>2</sup> )
Other States.....						346,333,702	<sup>1</sup> 1,095,362
	12,666	11,995,905	659,644	8,016,034,327	859,827,788	7,336,124,154	751,305,735

<sup>1</sup> Decrease.<sup>3</sup> No data.<sup>4</sup> Figures estimated.<sup>2</sup> Included with "other States."<sup>5</sup> May 31, 1927, to Dec. 31, 1928.

## Cooperation Among Canadian Farmers—The Canadian Wheat Pool

THE Canadian wheat pool had its beginnings in 1923, the year of the lowest wheat prices since 1914, according to a recently published study of the pool.<sup>1</sup> A group of Alberta wheat growers met and formed an association, each contributing \$3 and binding himself by a written agreement to deliver to the pool all his wheat crop for the next five years, the proceeds from the sale of the crop to be returned to the grower after subtracting the costs of marketing. The contract also made provision for the deduction, from the member's proceeds, of 2 cents a bushel to be used for the acquisition of grain elevators and a small percentage for reserves.

The idea underlying this new organization proved unexpectedly popular, and members came in in large numbers. In two weeks 25,000 farmers had joined the pool, their combined acreage representing 45 per cent of the entire wheat acreage of the Province. On October 19, 1923, the Alberta Cooperative Wheat Producers (Ltd.) was formed.

At the outset it had been planned to launch the movement simultaneously in all three of the prairie Provinces. In Manitoba, however, the drive was postponed until the following spring. In Saskatchewan a temporary obstacle was encountered in the antagonism between the Saskatchewan Grain Growers' Association and the Farmers' Union, which were sponsoring rival plans. Ultimately a basis of joint action was found, but the Saskatchewan pool was not organized until January, 1924. Once formed, however, it grew rapidly and by the end of June of that year had 46,509 members. In the meantime the Manitoba pool had been organized and by

<sup>1</sup> Irwin, W. A.: The Canadian Wheat Pool. (Reprinted from Maclean's Magazine.)



midsummer all three pools were ready for the business of disposing of the 1924 crop.

But still another step was taken. On July 28, 1924, the three pools formed a central selling agency, the Canadian Cooperative Wheat Producers (Ltd.). This was not a merger of the three local bodies, it was simply their sales body, governed by a board of three representatives from each of the provincial pools.

The growth of the movement has been very rapid. To-day the pool includes an area of some 16,190,000 acres, besides the properties of some 12,000 pool farmers in Ontario. This, as the author states, constitutes the largest farm in history, covering an area of some 25,000 square miles.

There are altogether some 284,000 farmers in the three prairie Provinces, of whom 132,800 have joined the pools—17,500 in Manitoba, 78,300 in Saskatchewan, and 37,000 in Alberta.

In 1928 the pool had a gross turnover of \$323,000,000, representing, according to the author, considerably more than the annual revenues of either of the two Canadian railways. The central wheat pool is reported to be the only business in Canada having an average turnover of more than a million dollars for every working-day in the year, and this in spite of the fact that the pool is not yet five years old.

Last year the pool farmers delivered to the provincial pools, 51.5 per cent of all the wheat marketed in western Canada. The central pool sold 222,908,000 bushels. Another dizzy figure that needs to be doctored to be understood. Translated into the railwayman's language it means 148,000 fully loaded freight cars, or a train 1,100 miles long. Measured in terms of food, it represents the wheat consumption of 44,000,000 hungry mouths for a year, something like 8,916,000,000 loaves of bread.

The 2-cent toll paid by each farmer has enabled the pool to purchase one grain elevator after another. In 1925 the local pools owned some 100 country elevators. To-day, of the 4,692 elevators in the three Provinces, the pools own 1,417, with a capacity of 52,560,000 bushels. The one elevator at Port Arthur is, the author states, the largest single-unit elevator in the world, having a capacity of 200,000 tons.

Since the inception of the pool elevator system, more than \$4,600,000 has been returned to pool farmers by way of successive patronage dividends—dividends which, had there been no pool, would have accrued to the owners of elevators. More than that, the individual pool members in proportion as they have delivered grain to the pool, still retain title to \$21,310,000 of elevator and commercial reserves on which they receive an annual interest payment of 6 per cent, over and above the payments made in the form of dividends. This in itself represents a return of more than \$1,200,000 a year which under the nonpool system would go to the lenders of money for elevator construction. Under the pool system it goes to the farmer by reason of the fact that he is his own lender.

The pool is the largest single factor in the world grain trade. Although Canada produces only about 12 per cent of the world's wheat supply, the Dominion exports nearly twice as much wheat as any other country. Last year, for instance, this country contributed 40 per cent of all the wheat entering into international trade. Of this, the pool controls not less than half. Last year, to give the specific figures, international trade in wheat totalled 828,000,000 bushels, while the pool's total handlings were 222,000,000. In actual fact, the pool controls anywhere from a fifth to a fourth of the total world's exportable surplus.

## WORKERS' EDUCATION AND TRAINING

### Adult Education in the United States, 1926-1928

**A**N INCREASE in adult education activities in this country during 1926-1928 is reported by L. R. Alderman, specialist in adult education of the United States Bureau of Education, in a recent bulletin from which the following data are taken.<sup>1</sup>

The World War, according to the author, aroused the United States to the importance of the education of the whole people. The National Academy of Sciences announced that approximately "one-fourth of the American Army were not functionally literate." The demand for the instruction for aliens in this country was greatly stimulated, and "Americanization" classes were set up. In nearly every important community the foreign born were taught to read and write the English language, to prepare them to become American citizens. These classes, however, were also attended by the native born. The term "Americanization," the report states, was obviously inappropriate and "adult education" was substituted and came into general use. Various organizations adopted such education as their objective. New bodies were organized to promote different phases of education for grown persons. With the increase of leisure of the working people, adult education on a large scale has been made possible.

The essentials of such education are held to be (1) that the work be voluntary, (2) that it be taken during leisure time, and (3) that it be "somewhat continuous and consecutive."

The discovery and announcement by distinguished psychologists that the ability to learn does not cease with maturity have been a strong stimulus to the expectation as to what might be achieved along the lines of adult education. The author is of the opinion that "probably the most outstanding event during the biennium [1926-1928] in the field of adult education was the publication of 'Adult Learning,' by Dr. E. L. Thorndike and others, which study reveals very clearly that learning ability is tenacious." He quotes from that study the following:

The provision of opportunities whereby adults can learn those things which they are able to learn and which it is for the common good that they should learn is a safe philanthropy and a productive investment of the Nation. Adult education suffers no mystical handicap because of the age of the students. On the other hand, it is not freed by the nature of its clients from any of the general difficulties—of adaptation to individual differences, stimulation of interest, arrangement for economy in learning each element, and organization of the subject of study so that each element of learning shall help all the others as much as possible and interfere with them as little as possible.

The table below, compiled from replies to a questionnaire sent to various State departments of education, indicates the present extent of the adult education movement.

<sup>1</sup> United States. Department of the Interior. Bureau of Education. Bulletin, 1929, No. 23: Adult education activities during the biennium 1926-1928. Washington, 1929.

ADULT EDUCATION ACTIVITIES AS REPORTED BY STATE DEPARTMENTS OF  
EDUCATION, JULY 1, 1926, TO JUNE 30, 1928

State	State legisla- tion to pro- vide educa- tion for adult—		Number of State super- visors in terms of full-time super- visors	State aid to com- muni- ties	Per cent of cost borne by State	Number of com- munities having public school classes for adults	Enrollment in all adult classes (na- tive and foreign- born)		Number of insti- tutions with training courses for teachers of adult classes	Has State an il- liter- acy com- mis- sion?
	For- eign- ers	Native illiter- ates					1926-27	1927-28		
Alabama.....	Yes	Yes	1½	Yes	50	436		13,757	0	No.
Arkansas.....	No	Yes	1	No	0		1,163	3,459	1	Yes.
California.....	Yes	Yes	1½	Yes	(1)		46,641	56,801	4	No.
Connecticut.....	Yes	Yes	2	Yes	15	54	8,743	9,246	1	No.
Delaware.....	Yes	Yes	2	Yes	98	73	2,276	2,251	1	No.
District of Co- lumbia.....	Yes	Yes	2	Yes	100	17		299	2	No.
Florida.....	Yes	Yes	0	No	0					No.
Idaho.....	Yes	Yes	0	No	0				0	No.
Illinois.....	Yes	Yes	0	No	0					No.
Iowa.....	No	No	0	No	0				3	No.
Kansas.....	No	No	0	No	0	3			0	No.
Louisiana.....	No	No	0	No	0				0	No.
Maine.....	Yes	Yes	2	Yes	66½	20			0	No.
Maryland.....	No	No	0	No	0	1	6,187	6,551	1	No.
Massachusetts.....	Yes	Yes	2	Yes	50	95	25,123	25,086	2	No.
Michigan.....	Yes	Yes	0	No	0				2	No.
Minnesota.....	Yes	Yes	1½	Yes	50	47			0	No.
Missouri.....	No	No	0	No	0				0	No.
Montana.....	Yes	Yes	0	No	0	0			0	No.
Nebraska.....	Yes	Yes	4	Yes	80	12		1,206	1	No.
Nevada.....	Yes	Yes	0	Yes	(1)	5			0	No.
New Hampshire.....	Yes	Yes	0	Yes	(1)				0	No.
New Mexico.....	No	No	0	No	0					No.
New York.....	Yes	Yes	6	Yes	50	130	74,900	75,000	10	No.
North Carolina.....	Yes	Yes	0	No	0	18	1,082	1,182	1	Yes.
North Dakota.....	Yes	Yes	0	Yes	50	25				No.
Ohio.....	Yes	Yes	1	No	0	35		24,596		No.
Oklahoma.....	No	No	0	No	0	500	5,000		0	Yes.
Oregon.....	Yes	Yes	1	No	0	12	1,800	2,000		No.
Pennsylvania.....	Yes	Yes	2	Yes	(1)	92	19,500	22,443	2	No.
Rhode Island.....	Yes	No	2	Yes	(1)	20			2	No.
South Carolina.....	No	Yes	1	Yes	75	688	11,967	9,775	1	Yes.
South Dakota.....	Yes	Yes	½	Yes	50	6	42	655		No.
Tennessee.....	No	Yes	0	Yes	(1)					No.
Texas.....	No	No	0	No	0					No.
Utah.....	No	No	0	No	0	4				No.
Vermont.....	No	No	0	No	0	3			0	Yes.
Washington.....	No	No		Yes	(1)	18		7,481		Yes.
West Virginia.....	Yes	Yes	0	Yes	(1)	100			0	No.
Wyoming.....	Yes	Yes		Yes		25		520	0	No.
Total.....			31¾			2,439	204,424	262,308	34	

<sup>1</sup> State aid to local districts varies.<sup>2</sup> In the District of Columbia school funds are provided in part by taxation upon property in the District and in part from the Treasury of the United States.<sup>3</sup> Schools for adults are provided in 17 centers.

As is shown, 26 States reported legislation concerning the education of adult foreigners and 25 States report legislation for the education of adult native-born illiterates. In 1927-28 the total enrollment of native and foreign born in adult classes was 262,308, an increase of 57,884 over 1926-27.

The adult educational activities in several States are cited as examples.



### Vocational Education in Missouri

**V**OCATIONAL education is rapidly becoming more popular in Missouri, according to the report of the vocational education board of that State for the two-year period ending June 30, 1928. The total expenditure, in the biennium covered, from local State and Federal funds for supervision and salaries of teachers of vocational education was \$648,290.56, of which \$225,004.33 was from Federal funds. Present appropriations are reported as not sufficient to meet the demands of all the additional schools that are making applications for this kind of training. The following summary of the above-mentioned publication indicates that there has been considerable development in vocational education for agriculture, home making, and industry.

*Agriculture.*—In Missouri, in the past decade, 120 high schools have instituted courses in vocational agriculture and \$212,000 is being expended per annum on reimbursements to school boards for agriculture alone. Instructors in these schools give systematic training to over 3,300 farm boys. In 1927-28, some 2,000 successful projects were completed, with a net profit of more than \$141,000. In certain cases the boys averaged as much as \$1.95 per hour for each hour actually devoted to their projects. This kind of practical farm training is being heartily indorsed by many persons, particularly by farmers and farm organizations. Included in the regular school course are the study and practice of breeding, feeding, care, and management of poultry and livestock; work with farm machinery, motors and tractors; a study of the selection of seeds; preparation of land, fertilizing, seeding, cultivation, harvesting, and crop marketing. Much attention is given to cooperation in marketing and to agricultural economics.

The community work of these instructors in vocational agriculture extends to cooperation with farmers' organizations and clubs throughout the whole community. Among the forms of this cooperation are: Assistance in marketing and production, instruction in poultry culling, orchard pruning, spraying, selecting seed corn, testing soil, judging stock, feeds and feeding, exhibits and shows of livestock and farm products, dairying, fertilizers, and various other agricultural problems.

*Home economics.*—Vocational home economics is taught in 69 Missouri day schools. Part-time and evening schools in home economics are increasing in numbers, and several thousand persons are being trained in the home-making art. Over \$35,000 per annum is disbursed in special aid to school boards where home economics is being taught. Evening classes in home making have been organized for older girls and women who desire training along this line. At a recent State fair 15 schools had vocational home economics exhibits.

*Trade and industry.*—The State has 15 industrial training centers, notable among which are the Lathrop Trade School in Kansas City and the evening schools of St. Louis. More than \$160,000 is distributed per annum to the schools for trade training. Numerous smaller towns are manifesting an unusual interest in industrial education, and five new centers have been established for such education in the last year. Industry has been requesting foremen's conferences, and several have already been held. At such conferences a short intensive course is given to a small group of foremen who in this way learn to cope with their problems in a more effective way.

### Bombay Labor College

**T**HE establishment of a labor college in Bombay is announced in the July, 1929, number of the Labor Gazette of the Bombay Government Labor Office. Classes were scheduled to begin on June 20 of this year and to be held at 7.30 p. m. The course of studies will cover a four-year period, the curriculum for the first year including English, elements of sociology, and economic principles. It is planned to make the lectures very simple, eliminating so far as is practicable all technical terms, in order that students who meet the entrance requirements in English may be able also to take the other first-year classes. Particular attention is to be given to making the courses interesting to mill and factory workers. If a sufficient number of students from industrial establishments is attracted by these educational opportunities, the lectures may be delivered in the people's vernacular.

This new institution will undoubtedly supply a great need in Bombay City, according to the article under review. While in the last few years a school of economics and sociology has been organized by the Bombay University, this new institution is intended for post graduates. The labor college, however, is for students who have had no university education. In addition to its regular courses, the Gazette reports, the college will organize "right types" of trade-unions and labor clubs and arrange public lectures on various labor problems by prominent men.

At present it is felt that it would not be possible for the college to address itself directly to the Bombay workers, but that it would be able to select the best and most intelligent of these wage earners and train them to be labor organizers and labor leaders.

# LABOR ORGANIZATIONS AND CONGRESSES

## Membership of Labor Organizations in Canada, 1928

THE following statistics on trade-union membership in Canada at the close of 1928 are taken from the eighteenth annual report on labor organizations in the Dominion for that year:

NUMBER AND MEMBERSHIP OF LABOR ORGANIZATIONS IN CANADA, 1928

Kind of organization	Branches		Members	
	Number	Increase or decrease compared with 1927	Number	Increase or decrease compared with 1927
International craft-unions.....	1,873	+4	<sup>1</sup> 186,917	+6,162
One Big Union.....	46	-4	<sup>2</sup> 20,029	+784
Industrial Workers of the World.....	7	0	4,400	0
Canadian central labor organizations.....	586	+49	<sup>3</sup> 51,858	+3,423
Independent units.....	36	-1	11,398	-1,049
National Catholic Unions.....	105	+1	26,000	+1,000
Total.....	2,653	+49	300,602	+10,320

<sup>1</sup> 134,366 affiliated with Trades and Labor Congress of Canada.

<sup>2</sup> All affiliated with All-Canadian Congress of Labor.

<sup>3</sup> 9,216 affiliated with Trades and Labor Congress of Canada; 29,904 with All-Canadian Congress of Labor.

Of the 83 international craft organizations operating in the Dominion, 81 have established one or more branches there. The remaining two have no branches in Canada but their few members in that country are directly connected with the central bodies. While some of the international unions have but small representation in the Dominion, others have a substantial membership there, 12 reporting 5,000 or more members each and 4 organizations having an aggregate membership in Canada of 58,757, distributed as follows: United Mine Workers of America, 15,500; Brotherhood of Railroad Trainmen, 15,172; Brotherhood of Railway Carmen of America, 14,052; and Brotherhood of Maintenance-of-Way Employees, 14,033.

## Canadian Trades and Labor Congress, 1929

THE forty-fifth annual meeting of the Trades and Labor Congress of Canada was held at St. Johns, New Brunswick, August 26-30 1929, more than 500 delegates and visitors being in attendance.<sup>1</sup> According to the report of the secretary treasurer the paid-up mem-

<sup>1</sup> Labor Gazette, Ottawa, September, 1929, pp. 1009-1021; Canadian Congress Journal, Ottawa, September, 1929, pp. 9-17, 32.



bership of the congress at the close of the fiscal year 1929 was 126,638—an increase of 7,395 over the preceding year. If those who were on strike or out of employment and for whom no per capita dues had been received be included, the above membership total would be raised by about 24,000.

Included in the matters reported upon by the executive council were: The annual interview of representatives of the congress with the Dominion Cabinet, the numerous conferences held with the department of labor and the department of immigration with a view to securing amendments to the law in order to prevent the displacement of workers by imported contract labor, the strong tendency among employers to fix age limits in hiring workers, the social problem developing from such practice, and the movement for holidays with pay.

The council recommended opposition by the delegates to a proposal for family allowances in the Dominion, which that body believed was not in the best interests of the workers of Canada, and its recommendation was followed by the congress.

Among the resolutions adopted were the following:

*Safety and sanitation.*—Requesting that the Government be petitioned to enact laws for the adequate protection of workers from the health hazards of spray painting and provide efficient supervision of all shops operating spray-painting machines, for the purpose of having the regulations observed by both employers and workers; urging legislation for the protection of workers employed in the erection and operation of hoisting and conveying machinery in building construction, and of workers employed in the installation and operation of electrical equipment; and the extension of the scaffolding act to include all works carried on in the various Provinces.

*Hours of labor and conditions of employment.*—Urging the improvement of the conditions of Federal office cleaners, changes in the shipping act in regard to the employment of marine engineers, the institution on all railways of a regular weekly pay day, amendments to the railway act to enable the railway commission to deal with matters affecting the working hours of certain classes of railway employees, and approving the 6-hour day and the 5-day week for all the miners of Canada.

*Hiring of labor.*—Calling for the development of the Federal and provincial employment service and the abolition of fee-charging agencies.

*Apprenticeship.*—In favor of the principle of apprenticeship training and requesting that steps be taken to coordinate technical education with such training under the guidance of boards upon which labor would be adequately represented.

*Unemployment and sickness insurance.*—Declaring that the displacement of labor by modern machinery makes it imperative that immediate measures be taken to relieve the situation until better means are instituted to guarantee every one an opportunity of earning a livelihood; and requesting that the convention ask the Federal Government to introduce a bill to provide for sickness and unemployment insurance, and that the British North American act be amended to give the Federal Government full jurisdiction in the matter.

*Immigration and importation of labor.*—Requesting that the alien labor act be amended so as to make it applicable against workers imported from any country; urging a yearly survey of labor requirements, for the purpose of adjusting immigration to the labor needs of Canada; and declaring opposition to any additional immigration until the natural increase in the Dominion population is adequately absorbed.

*Mothers' allowances.*—Favoring the enactment by the Quebec government of legislation to provide for mothers' allowances and maternity benefits, and similar action in all Provinces where there is no act of this kind in force.

*Workmen's compensation.*—In favor of certain amendments to the Quebec workmen's compensation act, among them one establishing the collective liability of the industry, another making the law applicable to all employers, and another providing that compensation be paid according to the occupation of the injured worker and his ability to earn his living and support his family; in favor of increasing the rates of the New Brunswick act 75 per cent "but in the case of a posthumous child that the amount for the child shall not be less than \$10 per month until the child is 12 years of age, and after that age regular rates to apply."

*Reelection of president.*—Tom Moore will again serve as president of the congress, and the 1930 convention city is Regina, Saskatchewan.

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### Unions and Union Membership in South Africa

THE number of unions in South Africa, and their membership, have undergone some marked changes during the last three years, especially in regard to the nonregistered bodies. Under the industrial conciliation act of 1924 provision was made for registering trade-unions and employers' associations, especially in services connected with the public utilities. (See Labor Review, July, 1924, p. 232.) Boards of conciliation and arbitration were to be established in the industries represented, strikes were to be regulated, and various data were to be furnished the Government for statistical purposes. In the Social and Industrial Review of the Union of South Africa for August 5, 1929, figures are given as to the number of unions, registered and nonregistered, and the membership, by occupation groups, as of September 30 of three years. The figures for 1928 are given in detail, but for 1926 and 1927 only the totals are published. The table following shows the latest figures available.

NUMBER AND MEMBERSHIP OF TRADE-UNIONS AND OTHER ASSOCIATIONS OF EMPLOYEES OF VARIOUS CLASSES OF OCCUPATION IN THE UNION OF SOUTH AFRICA, SEPTEMBER 30, 1928

Class of occupation	Registered		Nonregistered	
	Unions and associations	Member-ship	Unions and associations	Member-ship
Mining.....	10	9, 150	1	39
Engineering and metal working.....	3	4, 313	1	40
Building.....	9	8, 016		
Printing, bookbinding, etc.....	1	5, 063		
General manufacturing.....	22	7, 978	3	386
State services (excluding teaching).....	4	14, 419	9	17, 112
Teaching services.....			7	10, 866
Municipal and tramway services.....	11	6, 564	2	353
Trading and clerical.....	11	6, 323	3	986
Miscellaneous (including non-European unions).....	16	2, 418	21	19, 890
Total—1928.....	87	64, 844	47	49, 672
1927.....	83	58, 356	26	155, 264
1926.....	77	67, 234	30	48, 997

The drop in the membership of the nonregistered unions shown in 1928 as compared with 1927 is due, it is said, to a decline in the reported membership of the non-European organizations.



# LABOR TURNOVER

## Labor Turnover in American Factories

THE number of companies reporting their labor turnover experience to the bureau is gradually being increased. There are now about 400 companies on the list from which the bureau receives reports. These companies employ about 700,000 people. Schedules were received from about 70 per cent of these companies in time to be used in making up the preliminary figures for September. A number of the agencies cooperating with the bureau have been adding new companies to their lists in order that they may show figures by industries. The bureau hopes in the not far distant future to compile a labor-turnover index by industries for a number of leading industries.

The turnover rates on a monthly and an equivalent annual basis are presented herewith.

### AVERAGE LABOR TURNOVER RATES IN SELECTED AMERICAN FACTORIES<sup>1</sup>

[The rate is per 100 employees on the pay roll. The monthly rate is the rate for the calendar month. The equivalent annual rate is the rate for the month expressed as an annual rate]

#### A.—Monthly Rates

Month	Separation rates								Accession rate		Net turn-over rate	
	Quit		Lay-off		Discharge		Total <sup>2</sup>					
	1928	1929	1928	1929	1928	1929	1928	1929	1928	1929	1928	1929
January.....	1.3	2.3	0.7	0.4	0.3	0.4	2.4	3.1	2.8	5.0	2.4	3.1
February.....	1.2	2.4	.6	.4	.4	.5	2.1	3.2	2.4	4.4	2.1	3.2
March.....	1.7	3.1	.7	.5	.4	.6	2.8	4.2	3.0	5.2	2.8	4.2
April.....	2.1	3.6	.6	.5	.4	.6	3.1	4.6	3.3	5.8	3.1	4.6
May.....	2.4	3.5	.7	.5	.4	.5	3.5	4.4	4.0	5.1	3.5	4.4
June.....	2.2	3.2	.6	.4	.4	.5	3.2	4.2	3.4	5.0	3.2	4.2
July.....	2.3	3.0	.5	.4	.4	.5	3.2	3.9	4.0	5.2	3.2	3.9
August.....	2.7	3.4	.4	.4	.4	.4	3.6	4.1	4.7	4.6	3.6	4.1
September.....	3.3	<sup>3</sup> 3.4	.4	<sup>3</sup> .5	.4	<sup>3</sup> .5	4.2	<sup>3</sup> 4.4	4.7	<sup>3</sup> 5.3	4.2	<sup>3</sup> 4.4
October.....	2.7	-----	.4	-----	.4	-----	3.6	-----	4.8	-----	3.6	-----
November.....	2.1	-----	.4	-----	.4	-----	2.9	-----	4.1	-----	2.9	-----
December.....	1.7	-----	.4	-----	.4	-----	2.5	-----	3.2	-----	2.5	-----
Average...	2.1	-----	.5	-----	.4	-----	3.1	-----	3.7	-----	3.1	-----

<sup>1</sup> Now numbering over 400, with nearly 700,000 employees. The form of average used is the unweighted median of company rates.

<sup>2</sup> Arithmetic sum of quit, lay-off, and discharge rates.

<sup>3</sup> Preliminary, subject to revision.

## AVERAGE LABOR TURNOVER RATES IN SELECTED AMERICAN FACTORIES—Contd.

## B.—Equivalent Annual Rates

Month	Separation rates								Accession rate		Net turn-over rate	
	Quit		Lay-off		Discharge		Total <sup>1</sup>		1928	1929	1928	1929
	1928	1929	1928	1929	1928	1929	1928	1929				
January.....	15.7	26.7	8.5	4.2	3.6	5.3	27.8	36.2	33.4	58.6	27.8	36.2
February.....	15.1	31.0	7.9	4.7	4.6	6.0	27.6	41.7	31.6	56.9	27.6	41.7
March.....	20.1	36.8	8.4	5.7	4.3	6.7	32.8	49.2	35.9	61.2	32.8	49.2
April.....	26.0	43.3	7.1	5.5	5.1	6.9	38.2	55.7	40.0	70.2	38.2	55.7
May.....	28.2	40.8	8.3	5.7	5.0	5.6	41.5	52.1	47.2	59.9	41.5	52.1
June.....	27.1	39.5	7.5	5.4	4.9	6.2	39.5	51.1	41.3	60.9	39.5	51.1
July.....	27.2	35.7	5.9	5.0	4.9	5.8	38.0	46.5	46.9	61.4	38.0	46.5
August.....	31.9	38.4	5.1	4.8	5.3	5.3	42.3	48.5	55.7	54.3	42.3	48.5
September.....	40.3	<sup>2</sup> 41.5	5.0	<sup>3</sup> 6.3	5.3	<sup>3</sup> 5.9	50.6	<sup>3</sup> 53.7	56.9	<sup>3</sup> 64.5	50.6	<sup>3</sup> 53.7
October.....	31.9	-----	4.7	-----	5.3	-----	41.9	-----	57.1	-----	41.9	-----
November.....	25.6	-----	4.8	-----	4.9	-----	35.3	-----	50.1	-----	35.3	-----
December.....	20.1	-----	4.7	-----	4.4	-----	29.2	-----	38.1	-----	29.2	-----
Average.....	25.8	-----	6.5	-----	4.8	-----	37.1	-----	44.5	-----	37.1	-----

<sup>1</sup> Arithmetic sum of quit, lay-off, and discharge rates.<sup>3</sup> Preliminary, subject to revision.

There was a raise of over 10 points in the September, 1929, accession rate, expressed on an equivalent annual basis, as compared with the August, 1929, accession rate. The total separation rate, in contrast increased less than five points in the same period. The quit, discharge, and lay-off rates all showed an increase in September over August.

Comparing September, 1929, with September, 1928, there is an increase in all classes of separations and in accessions. The September, 1929, accession rate is more than 7 points above the September, 1928, accession rate, while the total separation rate for September, 1929, is 3.1 points above the total separation rate for the like month of 1928.

# INDUSTRIAL DISPUTES

## Strikes and Lockouts in the United States in September, 1929

DATA regarding industrial disputes in the United States for September, 1929, with comparable data for preceding months are presented below. Disputes involving fewer than six workers and lasting less than one day have been omitted.

Table 1 is a summary table showing for each of the months—January, 1927, to September, 1929, inclusive—the number of disputes which began in those months, the number in effect at the end of each month, and the number of workers involved. It also shows, in the last column, the economic loss (in man-days) involved. The number of workdays lost is computed by multiplying the number of workers affected in each dispute by the length of the dispute measured in working-days as normally worked by the industry or trade in question.

TABLE 1.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF EACH MONTH, JANUARY, 1927, TO SEPTEMBER, 1929

Month and year	Number of disputes—		Number of workers in- volved in disputes—		Number of man-days lost during month
	Beginning in month	In effect at end of month	Beginning in month	In effect at end of month	
1927					
January .....	37	18	5,915	2,287	58,125
February .....	65	45	9,756	5,717	115,229
March .....	74	67	13,142	8,182	214,283
April .....	87	88	202,406	199,701	5,265,420
May .....	107	116	22,245	200,702	5,136,006
June .....	80	88	18,957	196,323	4,863,345
July .....	65	63	33,994	199,287	5,308,123
August .....	57	53	8,150	198,444	4,999,751
September .....	57	58	12,282	196,829	4,945,702
October .....	50	58	13,024	82,095	2,724,117
November .....	27	51	5,282	82,607	2,040,140
December .....	28	54	4,281	81,229	2,129,153
1928					
January .....	48	63	18,850	81,880	2,128,028
February .....	52	58	33,441	103,496	2,145,342
March .....	41	47	7,459	76,069	2,291,337
April .....	71	48	143,700	129,708	4,806,232
May .....	80	56	15,640	133,546	3,455,499
June .....	44	46	31,381	143,137	3,670,878
July .....	54	42	18,012	132,187	3,337,386
August .....	59	42	8,887	105,760	3,553,750
September .....	52	34	8,897	62,862	2,571,982
October .....	61	42	27,866	41,474	1,304,913
November .....	44	38	37,840	38,745	1,300,362
December .....	23	29	5,172	35,842	991,238
1929					
January .....	45	34	14,727	39,484	949,692
February .....	48	34	20,134	40,385	921,583
March .....	77	42	14,052	41,321	1,094,161
April .....	103	52	30,130	52,292	1,429,046
May .....	98	73	26,220	58,959	1,578,929
June .....	69	71	19,702	54,584	1,526,627
July .....	74	75	35,900	21,872	1,116,557
August <sup>1</sup> .....	67	71	24,924	13,245	530,023
September <sup>1</sup> .....	64	74	16,437	16,415	413,928

<sup>1</sup> Preliminary figures subject to change.



## Occurrence of Industrial Disputes, by Industries

TABLE 2 gives by industry the number of strikes beginning in July, August, and September, 1929, and the number of workers directly involved.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN JULY, AUGUST, AND SEPTEMBER, 1929

Industry	Number of disputes beginning in—			Number of workers involved in disputes beginning in—		
	July	August	September	July	August	September
Auto, carriage, and wagon workers.....	5	1		1,409	600	
Bakers.....	2		1	105		600
Broom and brush workers.....		1			170	
Building trades.....	16	15	13	2,312	1,468	1,646
Car builders.....		1			1,500	
Chauffeurs and teamsters.....	9	5	4	1,038	629	364
Clothing.....	15	17	17	18,580	3,644	8,802
Electric and gas supply workers.....		1	1		300	500
Food workers.....		1			79	
Furniture.....	2	1	2	74	30	162
Leather.....	1	2	1	1,000	111	35
Longshoremen and freight handlers.....	1	1		100	225	
Metal trades.....	4	3	6	92	375	3,071
Miners.....	2	9	2	7,050	14,751	216
Motion-picture operators, actors, and theater employees.....	1	1	7	80	21	209
Oil and chemical workers.....			1			12
Printing and publishing.....	1		1	1,000		53
Railway workers.....			1			75
Rubber.....			1			14
Stationary engineers and firemen.....		1	1		120	26
Street-railway workers.....	1			1,500		
Municipal employees.....	1			22		
Textiles.....	12	4	4	1,238	708	602
Other occupations.....	1	3	1	300	193	50
Total.....	74	67	64	35,900	24,924	16,437

## Size and Duration of Industrial Disputes, by Industries

TABLE 3 gives the number of industrial disputes beginning in September, 1929, classified by number of workers and by industries.

TABLE 3.—NUMBER OF INDUSTRIAL DISPUTES BEGINNING IN SEPTEMBER, 1929, CLASSIFIED BY NUMBER OF WORKERS AND BY INDUSTRIES

Industry	Number of disputes beginning in September, 1929, involving—				
	6 and under 20 workers	20 and under 100 workers	100 and under 500 workers	500 and under 1,000 workers	1,000 and under 5,000 workers
Bakers.....				1	
Building trades.....	4	5	2	2	
Chauffeurs and teamsters.....		2	2		
Clothing.....	1	5	6	3	2
Electric and gas supply workers.....				1	
Furniture.....	1		1		
Leather.....		1			
Metal trades.....	1	2	2		1
Miners.....		1	1		
Motion-picture operators, actors, and theater employees.....	5	1	1		
Oil and chemical workers.....	1				
Printing and publishing.....		1			
Railway workers.....		1			
Rubber.....	1				
Stationary engineers and firemen.....		1			
Textiles.....	1	1	2		
Other occupations.....		1			
Total.....	15	22	17	7	3

In Table 4 are shown the number of industrial disputes ending in September, 1929, by industries and classified duration.

TABLE 4.—NUMBER OF INDUSTRIAL DISPUTES ENDING IN SEPTEMBER, 1929, BY INDUSTRIES AND BY CLASSIFIED DURATION

Industry	Classified duration of strikes ending in September					
	One-half month or less	Over one-half and less than 1 month	1 month and less than 2 months	2 months and less than 3 months	3 months and less than 4 months	4 months and less than 5 months
Bakers.....	1					
Broom and brush workers.....			1			
Building trades.....	8	3		1		2
Chauffeurs and teamsters.....	3					
Clothing.....	13	1		1		
Electric and gas supply workers.....	1					
Furniture.....	1					
Leather.....		1				
Metal trades.....	1	2				
Miners.....	1	3	1			
Motion-picture operators, actors, and theater employees.....	5	2				
Oil and chemical workers.....	1					
Printing and publishing.....	1					
Rubber.....	1					
Stationary engineers and firemen.....	1					
Textiles.....	1		1	1		
Other occupations.....	2					
Total.....	41	12	3	3		2

#### Principal Strikes and Lockouts Beginning in September, 1929

*Clothing workers, Pennsylvania.*—Demanding union recognition and an increase in wages, the Amalgamated Clothing Workers of America called several strikes against manufacturers of men's clothing in Philadelphia. The more important of these strikes were those against Pincus Bros. (Inc.), involving 550 workers and lasting from September 3 to 23; Middishade Co. (Inc.), involving 700 workers and lasting from September 9 to 15; and S. Makransky & Sons, involving 750 workers and lasting from September 9 to 21. In each case the company is reported to have signed union agreement granting an increase in pay of about 5 per cent.

*Garment workers, New York.*—Approximately 4,000 embroidery workers, hemstitchers, pleaters, and tuckers, affiliated with the International Ladies' Garment Workers' Union were on strike from September 4 to 6. About 300 shops were involved.

The union demands, as published in the press, were as follows: (1) The 40-hour week instead of the 42-hour week existing in the embroidery trade and the 44-hour week prevalent in the hemstitching, tucking, and pleating trades; (2) twenty per cent increase in wages for tuckers, stitchers, and pleaters (minimum wage scales now are \$55 a week for tuckers, \$30 a week for hemstitchers and pleaters); (3) an increase in the minimum wage scale for embroiderers from \$45 to \$48 per week; (4) two more legal holidays, making eight holidays a year; (5) abolition of the sweatshop; and (6) creation of joint impartial machinery, with the public represented.

The settlement arrived at represented important gains for the union, including the creation of an impartial chairman, similar to the

one in the cloak and suit industry, to adjust disputes referred to him, and to aid in abolishing sweatshop conditions; immediate establishment of the 40-hour 5-day week for embroidery workers; establishment of the 40-hour week for hemstitchers and tuckers in January when the shorter working week becomes effective in the dress trade; and a wage increase for helpers and novelty workers from \$30 to \$35 per week.

*Smelting and refining workers, New Jersey.*—Protesting against the company's bonus system by which the men were paid 45 cents an hour when they worked a full week and 40 cents an hour when they worked only six days, approximately 2,500 employees of the United States Metals Refining Co., at Carteret, were on strike from September 9 to 19. Demands for a flat rate of 50 cents an hour and a weekly instead of biweekly pay day were added after the strike began.

The company, it is said, agreed to eliminate the bonus system, to establish a weekly pay day, and to pay time and a half for Sunday work.

*Food workers, Missouri.*—The plant of the Loose-Wiles Biscuit Co. at Kansas City was affected by a strike of 1,200 employees, mostly women, from September 26 to 30, because of dissatisfaction with "a new type of piecework with bonus for machine workers," affecting bakers and candy makers.

The strikers returned to work under conditions which formerly prevailed.

*Paper hangers, Pennsylvania.*—A general strike of 500 paper hangers in Philadelphia began on September 25 for abolition of piecework, pay for overtime, the 44-hour week, and a union scale of \$9 per day. This strike, it is understood, ended successfully, or practically so, by September 26.

*Clothing workers, Maryland.*—To enforce demands including a wage increase of 10 per cent, 1,200 pressers, pants and vest makers, etc., affiliated with the Amalgamated Clothing Workers of America and employed in some 60 establishments in Baltimore struck on September 27.

According to reports from union sources this strike ended successfully by October 4.

#### Principal Strikes and Lockouts Continuing into September, 1929

*Shoe workers, Massachusetts.*—The strike which began on August 28 at Salem, Lynn, and Beverly is understood to have ended by August 31, being successful as to some shops. In some cases an injunction was applied for against the strikers and one factory, the G. W. Herrick Shoe Co. in Salem, employing about 250 workers, announced that the plant would be permanently closed and the business moved elsewhere.

The strike in Boston and Chelsea which began April 8 is apparently still in progress.

*Street-car workers, Louisiana.*—The strike at New Orleans which began July 2 is still unsettled, although the street cars, it is understood, have been in operation since early in August.

On October 10, according to press reports, the men voted in favor of accepting the proposed tentative agreement, heretofore described,



provided the company would arbitrate on the interpretation of clauses in the agreement, but the general manager of the company announced that the company would agree to nothing except the exact terms of the agreement providing for reemployment of the strikers as fast as conditions permitted.

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### Conciliation Work of the Department of Labor in September, 1929

By HUGH L. KERWIN, DIRECTOR OF CONCILIATION

THE Secretary of Labor, through the Conciliation Service, exercised his good offices in connection with 70 labor disputes during September, 1929. These disputes affected a known total of 29,112 employees. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached the strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workers directly and indirectly involved.

On October 1, 1929, there were 52 strikes before the department for settlement and in addition 21 controversies which had not reached the strike stage. The total number of cases pending was 73.

## LABOR DISPUTES REPORTED DURING THE MONTH OF SEPTEMBER, 1929

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
Theater musicians, Chicago, Ill.	Controversy	Musicians	Wages; asked 5 per cent increase, or \$10 per week.	Adjusted. Allowed \$5 per week increase and 4 weeks' notice before dismissal.	1929 Aug. 30	1929 Aug. 31	800	---
Miners, Princeton, Ind.	Strike	Miners	Overtime labor; 2 discharged.	Adjusted. Discharged men reemployed; must work overtime in case of emergency.	Aug. 3	Sept. 6	200	---
Shell Oil Co., Martinez, Calif.	Controversy	Boiler makers	Wage dispute.	Pending	Aug. 26	---	35	200
Shell Oil Co., Wilmington, Calif.	do	do	do	do	do	---	10	100
Steinberg-Ortsky, Philadelphia, Pa.	Strike	Clothing workers	Union recognition.	Adjusted. Union agreement, with 5 per cent increase in wages.	Aug. 16	Aug. 30	150	---
Fort Wayne Light & Power Co., Fort Wayne, Ind.	Threatened strike	Linemen	Asked 10 cents per hour increase.	Adjusted. Allowed 5 cents per hour increase.	Aug. 1	Sept. 1	40	50
Bonnaz embroidery workers, New York City.	Strike	Embroiderers	Wages, hours, working conditions, and union recognition.	Pending	( <sup>1</sup> )	---	3,000	1,000
Motion-picture theaters, Buffalo, N. Y.	Threatened strike	Operators	Asked \$100 for 6-day week.	Adjusted. Allowed \$90; increase \$14 per week.	Sept. 1	Sept. 23	50	150
General Outdoor Advertising Co., New York City.	Strike	Bill posters	Wages, hours, and working conditions.	Adjusted. Allowed \$40 to \$45 for 44-hour week.	Aug. 30	Sept. 10	123	---
Blackfoot Coal Co., Pike County, Ind.	do	Coal miners	Working conditions.	Adjusted. Settled by arbitration.	( <sup>1</sup> )	Sept. 6	200	---
Comerford Amusement Co., Scranton, Pittston, and Wilkes-Barre, Pa.	do	Motion-picture operators.	Wage dispute.	Adjusted. Increase of \$6 per week in "sound houses"; \$3 and \$4 in "silent houses"; \$1 additional in 1 year.	Sept. 2	Sept. 5	105	---
Building trades, Pittsburgh, Pa.	do	Building trades	Wages and working conditions.	Adjusted. Strike called off; negotiations resumed later.	( <sup>1</sup> )	Sept. 12	180	20
Gilson Manufacturing Co., Port Washington, Wis.	do	Molders	Asked 9-hour day and recognition of shop committee.	Adjusted. Shop committee recognized.	Aug. 30	Sept. 16	127	---
Pincus Bros. (Inc.), Philadelphia, Pa.	do	Clothing workers	Asked union recognition.	Adjusted. Union agreement, with 5 per cent wage increase.	Sept. 3	Sept. 23	550	---
H. Cladwell and other companies, Philadelphia, Pa.	do	do	do	do	July 20	Aug. 27	421	---
Ladies' garment workers, Philadelphia, Pa.	Threatened strike	Waist and dress makers.	do	Pending	( <sup>1</sup> )	---	6,000	---
Midishade Co. (Inc.), Philadelphia, Pa.	Strike	Clothing workers	Asked union recognition and wage increase.	Adjusted. Union agreement, with 5 per cent wage increase.	Sept. 9	Sept. 15	700	---
Makransky & Sons, Philadelphia, Pa.	do	do	do	do	do	Sept. 21	750	---

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LABOR DISPUTES REPORTED DURING THE MONTH OF SEPTEMBER, 1929—Continued

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
Children's dress manufacturers, New York City.	Controversy	Clothing workers.	Organization.	do.	1929 (1)	1929	(1)	---
Demato Clothing Co., Philadelphia, Pa.	Strike.	do.	Asked union recognition.	Adjusted. Union agreement.	Sept. 18	Sept. 19	200	---
American Brown Boveri Electrical Corporation, Camden, N. J.	do.	Laborers.	Proposed cut in pay for overtime.	Adjusted. Company withdrew proposal of cut.	Sept. 16	Sept. 16	650	---
Garden, American, and Indiana theaters, Indiana Harbor, Ind.	Lockout.	Theater doormen, cashiers, and usherers.	Asked union recognition and agreement.	Adjusted. No change; may return as needed.	Aug. 28	Sept. 7	22	---
Parthenon and Orpheum theaters, Hammond, Ind.	do.	do.	do.	do.	Aug. 26	do.	18	---
Capital Theater, Whiting, Ind.	do.	do.	do.	do.	Aug. 28	do.	6	---
Telephone building, Indianapolis, Ind.	Controversy	Bricklayers and carpenters.	Jurisdiction of painting and calking.	Pending.	Sept. 16	do.	33	20
Glass companies, Milwaukee, Wis.	Strike.	Glaziers.	Union asked \$1 per hour, 8-hour day, and recognition.	do.	Sept. 3	do.	64	---
Gensser Trucking Co., New York City.	do.	Drivers.	Asked union recognition and pay for overtime.	Adjusted. Agreement signed; \$1 per hour for overtime.	Sept. 9	Sept. 20	25	---
A. Lieberman & Sons, Philadelphia, Pa.	do.	Clothing workers.	Asked increase and union recognition.	Adjusted. Recognition and 15 per cent wage increase.	Sept. 19	do.	100	---
Cambridge and Marietta theaters, Cambridge, Ohio.	do.	Motion-picture workers.	Alleged violation of contract.	Adjusted. Will observe terms of contract in future.	(1)	Sept. 21	15	50
Templeton Coal Co., Sullivan, Ind.	Controversy	Coal miners.	Objection to shot firer working as laborer.	Adjusted. Agreed to arbitration and arbitrator named.	Sept. 15	Sept. 20	200	---
Theaters, Fresno, Calif.	Strike.	Film operators.	Asked \$12 increase per week.	Adjusted. Allowed \$6 increase.	Sept. 23	Sept. 24	18	150
Clothing shops, Philadelphia, Pa.	do.	Clothing workers.	Asked union recognition and wage increase.	Adjusted. Union agreement, with 5 per cent wage increase.	Sept. 19	Sept. 21	285	---
Garage mechanics, La Crosse, Wis.	do.	Machinists.	Asked 70 cents per hour and 9-hour day.	Pending.	Aug. 11	do.	15	22
Methodist Hospital Building, Indianapolis, Ind.	Controversy	Bricklayers and carpenters.	Jurisdiction of window-frame work.	Adjusted. Carpenters received award.	Sept. 23	Sept. 24	15	62
Riley Hospital power plant, Indianapolis, Ind.	do.	Bricklayers.	Bricklayers' work done by maintenance men.	Pending.	(1)	do.	5	10
Paper hangers, Philadelphia, Pa.	Strike.	Paper hangers.	Establishment of uniform rate of \$9 per day.	Pending. Many shops have signed agreement.	Sept. 25	do.	500	---
Long Manufacturing Co., Goshen, Ind.	Lockout.	Metal polishers.	Alleged discrimination against officers of local union.	Pending.	(1)	do.	40	100

Standard Manufacturing & Plating Co., Goshen, Ind.	do.	do.	do.	do.	do.	(1)	12	18
Frye Packing Co., Seattle, Wash.	Controversy	Butchers	Brought about by lockout of polishers of Long Manufacturing Co.	do.	do.	(1)	75	---
Washington merchant tailors, Washington, D. C.	do.	Tailors	Unionization	do.	do.	Sept. 25	180	---
Transue Williams Steel Forging Corporation, Alliance, Ohio.	Strike	Press operators	Renewal of agreement with journeymen tailors.	do.	Adjusted. Returned without change before arrival of commissioner.	Sept. 12	24	---
Schmidt Bros. Construction Co., Evanston, Ill.	do.	Building trades	Machine operators objected to rate of 30 cents per hour.	do.	Pending	(1)	60	40
Union Oil Co., Poso Creek field, Calif.	Controversy	Pipe-line workers	Nonunion carpenters, cement finishers, plasterers, and laborers employed.	do.	Adjusted. Not allowed; straight-time pay continued.	Sept. 4	14	86
Standard Sheet Metal Co. and other firms, Fresno, Calif.	do.	Sheet-metal workers	Asked overtime pay for 2 hours spent in coming to and going from work.	do.	Adjusted. Allowed \$1 per day increase before arrival of commissioner.	Sept. 3	28	40
Fairchild Press (Inc.), New York City.	Strike	Delivery boys	Asked regulation of apprentice labor.	do.	Adjusted. Employed 4 union drivers and 100 delivery boys on part time.	Sept. 24	6	400
Patrick McGovern Co. (Inc.), New York City.	do.	Compressed-air workers	Asked union recognition.	do.	Adjusted. Agreement allowing 8-hour day, 6-day week, \$9.50 per day for drillers, \$6.50 for all other classes, and union recognition.	Sept. 23	600	1,000
Total			Asked prevailing rate according to State law.				24,081	5,031

<sup>1</sup> Not reported.

### Proposed Abolition of Federal Industrial Arbitration in Australia

**F**OR some time past the dual system of State and Federal industrial arbitration awards in Australia has given rise to difficulties. Each of the six State parliaments has full authority to legislate on industrial matters within its own territory, and each, except Victoria, which has a system of wage boards, has established an industrial arbitration court to deal with questions of hours, wages, and working conditions. The Commonwealth has a Federal arbitration court for the prevention and settlement of industrial disputes extending beyond the limits of any one State, but has no power to deal with disagreements confined to a single State. If either employers or employees wish to bring a claim before the Federal, rather than before a State court, it can easily be done by creating a disagreement extending to two or more States. This is usually done not by inaugurating a strike or lockout, but by one side or the other making a number of demands, the refusal of which creates technically a dispute and, if the parties are represented in more than one State, automatically drings the matter before the Commonwealth court. But there are strict limits on what this court can do.

When the parties are before the Commonwealth court the only thing that the court can deal with is the dispute. Matters which are not in dispute can not be handled by the court at all. It also follows from the wording of the constitution that the only persons with whom the court can deal are the disputants. In an ordinary case these are the trade-union on one side and the employers on the other, who have been cited before the court. Employees who are not members of the trade-union are not parties to the industrial dispute and can therefore obtain no rights under the award. Similarly, the employers who are not parties to the dispute or who have not been cited before the court can not be bound by the award.<sup>1</sup>

The proceedings before the Commonwealth court are apt to be slow, often consuming more than a year, and during all this time the industry is uncertain as to what its conditions are going to be. Moreover, Federal and State awards often overlap or duplicate each other, creating confusion and dissatisfaction. An Australian correspondent of the Manchester Guardian cites, in the issue of September 10, 1929, some of the difficulties arising from this cause.

In many industries both Federal and State awards prevail, each prescribing different scales of remuneration and working conditions. A mechanic at one bench in a factory, working under a State award, may be enjoying less liberal conditions than his neighbor, a member of a Federal union; and this disparity alone is a fruitful source of discontent. As an example, an agricultural machine manufactory in Victoria is governed by more than 30 awards with varying provisions as to pay, overtime, holidays, and the rest.

The Commonwealth Government made several attempts to secure a fuller control of the situation. In 1926 an amendment to the constitution was proposed, designed to give the Commonwealth more control over industry and to bring the State jurisdiction over industrial matters within the scope of Federal legislation, but this, when submitted to a referendum of the people, was rejected by a majority of over 400,000. (See Labor Review, November, 1926, p. 43.) In 1928 a Federal act was passed, known as the Commonwealth conciliation and arbitration act, giving the Federal Government more

<sup>1</sup> Industrial and Labor Information, May 6, 1929, p. 145.



power to enforce its awards against recalcitrant disputants. This, however, in practice did little to remove the difficulties inherent in the situation.

In May of the present year, the Prime Minister, Mr. Bruce, addressing a gathering of the premiers of the separate States, declared that the Federal Government "had arrived at the definite conclusion that the present duplication of industrial powers was not only unsatisfactory in principle, but that in practice it was responsible for serious economic waste, and for the irritation of personal relations between employers and employees."

The Commonwealth Government was definitely of the opinion, he continued, that either extended powers must be conferred upon the Commonwealth, or that the sole responsibility must be assumed by the State. He invited the premiers to state definitely whether they were prepared to recommend to their parliaments the transference of full industrial powers in the Commonwealth. If they were not prepared to do that, it would be the duty of the Commonwealth Government to ask the Commonwealth Parliament to repeal the existing arbitration legislation, subject to a transitional provision which would preserve existing awards and agreements for a period sufficient to enable the State to assume complete control. In the case of shipping and waterside industries, the Federal Parliament already had sufficiently complete powers to make it desirable for the Commonwealth to retain control of those services.<sup>2</sup>

The premiers without exception refused to recommend to their parliaments the proposed transfer of industrial powers, and consequently as soon as the Federal Parliament assembled in August the Government introduced a bill for the repeal of the Federal arbitration system. This bill was violently opposed by the labor party and the trade-unions, who thought they saw in it the first step toward depriving the workers of all the protection given them by the Australian system of industrial legislation. Modification of the system, they admitted, was desirable, but amendment, not abolition, should be the object. Others, not allied with the workers, felt that the proposed move was too drastic, and some of the Prime Minister's own supporters aligned themselves against him on this point.

The combined opposition was sufficient to defeat the bill, which, having passed its second reading by a majority of four votes, was practically killed by the adoption of an amendment that it should remain in abeyance until the people of Australia had been consulted. As a result of this defeat of a Government bill, the Prime Minister applied for a dissolution of Parliament, and a general election was ordered to be held October 12, within a year of the last appeal of the general electorate.

This resulted in a victory for the labor party, which captured 46 of the 75 seats in the new House, the Nationalists securing 14, the country party 10, and the independent nationalists 3, with 2 other seats held by independents. According to Associated Press dispatches, the Prime Minister, Mr. Bruce, resigned in consequence of this defeat, and at the reassembling of Parliament it is expected that the labor party will take control, with their leader, James Henry Scullin, as premier.

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<sup>2</sup> Australian Worker, May 29, 1929, p. 18.

### Taxi Drivers' Strike in Warsaw, Poland

**A** "CHAUFFEURS' week," inaugurated by the municipal government of Warsaw for the purpose of impressing the need for caution upon drivers by imposing penalties for every violation of traffic regulations, however slight, was followed by a drivers' strike on August 5, 1929, as reported by Chester W. Davis, United States consul at Warsaw, August 7, 1929.

As a result of the strike the taxi service in the city of Warsaw was entirely suspended.

The strike, as stated by the leaders of the drivers, was a protest not only against alleged unreasonable police interference but also against the low rates established under the city ordinance.

The present rate ordinarily charged is 50 grosz (about 6 cents) for the first 500 meters (about three-tenths of a mile) and 20 grosz (about 2½ cents) additional for each additional 300 meters (about one-fifth of a mile). Waiting is charged for at the rate of 4 zlotys (about 44 cents) for each 60 minutes. A few of the larger cars are permitted to charge 60 grosz (7 cents) for the first 500 meters and 20 grosz for each additional meter.

There are about 3,000 taxicabs in Warsaw and the number of drivers involved in the strike was approximately 5,000.

While there is a considerable number of chauffeurs who own their own cabs, the majority of cabs are owned by syndicates, and the chauffeurs who operate in two shifts receive 25 per cent of the meter earnings. The average earnings of a taxicab driver were from \$1 to \$1.50 per day, although they may reach \$2 in exceptionally good days.

## HOUSING

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### Building Permits in Principal Cities, August and September, 1929

**T**HE Bureau of Labor Statistics presents herewith its first monthly report of building permits issued in cities of the United States having a population of 25,000 or over. Data are shown in this report for both August and September, but the August figures cover only those cities which had been reporting monthly to the bureau in the past.

On October 1 schedules asking for the amount of building permits issued in September were mailed to each city in the United States having a population of 25,000 or over. According to the last estimate of the Census Bureau, there were 319 cities in this population group. Reports were received from 264 cities in time to be included in this report. The receipt of the reports of 83 per cent of the total number of cities is very gratifying for the first month. It is expected that more cities will report in future months. The States of Illinois, Massachusetts, New Jersey, New York, and Pennsylvania are cooperating in the collection of these data through their departments of labor.

The bureau feels that the issuance of these reports monthly will give valuable and timely information, as building permits issued form one of the best barometers of general business conditions which can be obtained.

Because of the comparatively meager returns for August, comparisons are not shown in this report by districts. A total of all cities is shown for August, compared with a total of the same cities for September. Totals are shown for September by geographical districts. These districts are the same grouping of States as is used by the Bureau of the Census in its reports on the census of manufactures, and by the Bureau of Labor Statistics in its reports on volume of employment.

The table below shows the estimated cost of residential buildings, nonresidential buildings, the cost of all building operations, including repairs, and the number of families provided for in all cities from which data were received in either August or September.



ESTIMATED COST OF NEW BUILDINGS FOR WHICH PERMITS WERE ISSUED IN  
PRINCIPAL CITIES, AUGUST AND SEPTEMBER, 1929*New England States*

[Where no figures appear, the item was not reported]

City	New residential buildings				New nonresidential buildings, estimated cost		Total construction, including alterations and repairs, estimated cost	
	Estimated cost		Families provided for in new dwelling houses					
	August, 1929	September, 1929	August, 1929	September, 1929	August, 1929	September, 1929	August, 1929	September, 1929
<b>Connecticut:</b>								
Greenwich		\$417,000		21		\$53,060		\$544,425
Meriden		42,050		11		6,050		57,475
New Britain		11,000		1		5,458		43,766
New Haven		65,000		8		63,330		153,330
Norwalk		221,200		22		20,250		286,100
Stamford	\$143,900	160,100	22	24	\$44,450	182,530	\$224,400	369,055
Waterbury		101,500		22		13,750		175,900
<b>Maine:</b>								
Bangor		90,100		4		3,725		95,825
Lewiston		30,000		6		6,800		49,800
Portland		53,900		12		39,860		118,795
<b>Massachusetts:</b>								
Boston	475,000	444,300	102	98	5,427,635	618,500	8,058,987	1,507,950
Brockton	35,000	17,500	6	4	247,370	16,750	314,567	59,325
Brookline	334,600	17,000	42	1	246,240	7,750	615,030	47,710
Cambridge	41,500	2,054,200	35	3	65,920	558,410	233,605	2,737,745
Chelsea	56,500	0	8	0	9,700	9,450	73,960	15,425
Chicopee	27,000	43,000	7	7	7,300	9,550	36,775	60,650
Everett	37,500	8,000	11	2	163,000	13,750	214,150	27,850
Fall River	32,100	18,300	7	3	35,842	13,860	81,912	102,910
Fitchburg	43,500	25,500	6	6	800	23,296	56,725	52,786
Haverhill	20,900	17,950	7	8	11,480	14,965	37,025	43,330
Holyoke	5,000	19,500	1	2	128,475	10,950	143,025	85,300
Lawrence	14,500	0	3	0	27,650	13,140	76,525	92,290
Lowell	10,500	1,800	3	2	3,120	4,420	72,865	60,960
Lynn	272,500	55,000	78	13	22,815	446,265	337,145	521,990
Malden	146,000	35,000	37	7	57,150	90,135	212,388	151,815
Medford	181,600	137,900	28	28	20,325	15,375	212,825	173,480
New Bedford	7,000	14,000	2	2	47,200	92,965	72,300	126,080
Newton	231,700	279,500	22	32	33,370	56,090	320,655	413,275
Pittsfield	125,700	195,600	25	26	27,000	14,175	415,850	227,075
Quincy	195,000	160,200	42	38	219,015	150,000	451,636	363,773
Revere	30,500	74,500	7	15	3,335	9,475	45,385	106,885
Salem	73,000	41,650	11	8	3,900	55,375	164,585	125,711
Somerville	48,000	23,000	13	6	20,300	619,431	81,666	674,558
Springfield	140,300	72,800	33	19	390,760	22,395	578,350	165,705
Taunton	16,200	16,000	4	3	5,690	13,333	32,095	61,708
Waltham	67,000	110,900	12	26	63,600	73,250	165,525	200,130
Watertown	64,500	108,500	11	22	26,180	14,700	93,465	125,975
Worcester	123,100	130,350	26	23	199,145	47,750	393,593	255,091
<b>New Hampshire:</b>								
Manchester		51,950		10		15,265		106,428
<b>Rhode Island:</b>								
Central Falls		0		0		164,335		167,335
Cranston	186,400	146,500	40	30	14,110	16,910	203,385	172,460
Newport		20,500		4		9,000		44,105
Pawtucket	183,800	125,900	32	27	52,180	16,700	250,120	183,620
Providence		414,600		52		257,000		861,600
Woonsocket		0		0		4,890		10,700
Total		6,073,250		658		3,914,418		12,028,201

*Middle Atlantic States*

<b>New Jersey:</b>								
Atlantic City		\$8,000		2		\$12,380		\$52,253
Bayonne		15,000		3		6,150		26,150
Bloomfield		150,000		27		377,000		530,000
Camden		51,000		16		28,725		109,935
Clifton		211,000		42		31,550		251,125
East Orange		38,900		10		63,940		140,716
Hoboken		0		0		30,500		49,800

ESTIMATED COST OF NEW BUILDINGS FOR WHICH PERMITS WERE ISSUED IN  
PRINCIPAL CITIES, AUGUST AND SEPTEMBER, 1929—Continued

## Middle Atlantic States—Continued

[Where no figures appear, the item was not reported]

City	New residential buildings				New nonresidential buildings, estimated cost		Total construction, including alterations and repairs, estimated cost	
	Estimated cost		Families provided for in new dwelling houses					
	August, 1929	September, 1929	August, 1929	September, 1929	August, 1929	September, 1929	August, 1929	September, 1929
New Jersey—Con.								
Irvington		\$74,650		15		\$35,550		\$120,675
Jersey City		109,000		27		1,815,760		2,030,770
Kearny		37,200		11		2,010,035		2,050,785
Montclair		139,000		9		17,700		201,855
Newark	\$463,080		91		\$2,331,361		\$3,036,586	
New Brunswick		35,000		5		16,400		62,740
Orange		10,000		1		19,050		59,235
Paterson		91,500		20		28,174		202,699
Perth Amboy		10,740		3		9,325		58,490
Plainfield		46,800		11		10,625		96,624
Trenton		47,850		12		24,815		125,642
Union City		12,500		4		4,500		38,275
West New York		0		0		102,900		119,700
New York:								
Albany	201,000	115,500	18	10	30,735	398,139	500,530	576,337
Amsterdam	30,800	13,800	5	2	2,500	368,000	33,300	387,200
Auburn	20,500	29,800	5	5	6,535	9,670	33,385	47,728
Binghamton	32,500	42,300	10	6	36,078	107,862	135,020	312,526
Buffalo	578,300	570,500	122	175	829,646	6,847,311	1,556,196	7,490,606
Elmira	159,810	16,950	11	4	44,101	30,450	217,021	80,603
Jamestown	106,300	61,100	27	15	45,225	9,500	163,825	162,240
Kingston	24,500	20,000	4	1	92,110	10,075	146,660	48,330
Mount Vernon	58,500	184,500	5	15	120,100	28,850	214,183	523,625
Newburgh	53,000	47,000	8	8	11,850	54,000	79,050	114,600
New Rochelle	270,000	117,000	16	5	207,377	223,279	524,798	362,793
New York City:								
The Bronx	3,438,100	776,400	607	128	1,966,400	1,466,000	6,111,125	2,677,852
Brooklyn	2,001,700	1,639,000	389	338	2,606,365	3,220,720	6,760,425	5,658,490
Manhattan	3,750,000	12,825,000	27	995	18,462,500	4,174,800	24,304,951	18,993,425
Queens	1,513,780	1,775,900	344	375	1,449,014	2,370,209	3,190,058	4,513,223
Richmond	430,650	373,500	105	149	611,953	389,190	1,100,788	818,485
Niagara Falls	187,050	80,900	28	16	348,460	21,146	577,315	139,682
Poughkeepsie	57,800	35,000	5	5	27,475	104,150	108,725	153,943
Rochester	309,550	209,250	40	36	796,326	292,901	1,268,112	595,133
Schenectady	134,700	165,500	24	35	28,575	254,300	225,775	487,175
Syracuse	451,000	299,000	83	52	56,710	825,117	633,425	1,266,153
Troy	96,300	38,000	12	8	146,860	9,100	288,585	72,625
Utica	35,500	79,800	6	12	7,525	129,000	111,575	248,050
Watertown	26,000	45,000	5	6	21,115	3,335	51,243	60,896
White Plains	276,000	63,000	37	6	203,685	39,250	603,655	115,197
Yonkers	687,027	480,000	75	47	223,779	92,555	1,019,431	1,130,002
Pennsylvania:								
Allentown	260,700	95,000	45	17	94,750	75,900	412,735	195,800
Altoona	56,950	67,535	12	11	81,256	39,209	167,943	139,475
Bethlehem	81,200	133,925	12	21	36,400	27,855	139,550	735,060
Butler		0		0		8,750		15,895
Easton	9,000	0	2	0	6,880	24,965	44,495	75,701
Erie	151,509	85,350	18	16	121,140	128,533	531,456	404,690
Hazleton	14,450	5,400	1	1	8,097	8,477	38,093	22,631
Johnstown	21,000	24,000	5	2	30,935	8,994	87,365	45,254
Lancaster	51,100	13,000	9	4	8,165	26,115	66,335	50,575
McKeesport	109,300	122,900	20	21	8,390	112,325	141,132	260,282
New Castle	24,600	20,400	4	4	102,275	4,075	128,525	31,335
Norristown	15,500	48,600	3	10	6,570	43,525	37,355	111,235
Philadelphia	796,200	1,061,500	169	242	1,433,895	2,254,055	2,960,355	3,681,110
Pittsburgh	749,900	1,290,600	113	297	834,390	1,221,045	2,412,455	2,860,677
Scranton	32,500	52,600	9	13	56,765	10,925	131,344	90,520
Wilkes-Barre	9,800		3		45,600		97,056	
Wilkesburg	49,000		8		10,630		97,840	
Williamsport	35,500	36,000	6	10	151,205	45,512	220,089	89,047
York	34,000	47,500	3	5	31,775	52,615	92,846	289,266
Total		24,296,150		3,346		30,216,863		62,462,943

ESTIMATED COST OF NEW BUILDINGS FOR WHICH PERMITS WERE ISSUED IN  
PRINCIPAL CITIES, AUGUST AND SEPTEMBER, 1929—Continued

## East North Central States

[Where no figures appear, the item was not reported]

City	New residential buildings				New nonresidential buildings, estimated cost		Total construction, including alterations and repairs, estimated cost	
	Estimated cost		Families provided for in new dwelling houses					
	August, 1929	September, 1929	August, 1929	September, 1929	August, 1929	September, 1929	August, 1929	September, 1929
Illinois:								
Alton	\$45, 145	\$19, 400	11	5	\$10, 551	\$6, 117	\$67, 938	\$39, 012
Aurora	86, 000	63, 000	15	13	18, 220	16, 435	129, 412	91, 450
Belleville		63, 183		14		38, 580		102, 138
Bloomington	52, 000	121, 000	10	13	8, 500	3, 000	64, 500	147, 000
Chicago	6, 006, 300	4, 946, 100	1, 357	750	12, 318, 400	6, 573, 000	18, 893, 145	12, 026, 015
Cicero	61, 800	156, 000	9	19	81, 845	326, 705	191, 095	534, 931
Danville	9, 500	59, 000	3	17	10, 000	12, 300	73, 840	94, 837
Decatur	116, 200	84, 200	21	20	36, 550	41, 030	180, 750	131, 180
East St. Louis	125, 050	96, 200	44	35	163, 118	16, 825	297, 428	126, 113
Elgin	71, 675	31, 200	14	7	15, 830	43, 345	109, 290	90, 330
Evanston	72, 000	133, 000	8	10	43, 000	101, 500	216, 500	325, 150
Joliet	176, 000	148, 500	24	17	22, 310	83, 500	230, 205	257, 257
Moline	84, 800	83, 900	18	19	9, 266	67, 674	126, 495	263, 784
Oak Park	87, 500	86, 000	11	5	75, 200	112, 580	181, 100	223, 290
Peoria	155, 098	189, 550	33	42	10, 330	54, 505	247, 177	318, 020
Quincy	12, 800	12, 800	3	4	7, 580	12, 140	25, 175	40, 790
Rock Island	78, 500	51, 300	22	14	6, 020	13, 585	510, 729	133, 470
Rockford	208, 900	162, 000	54	43	218, 682	48, 660	556, 857	262, 960
Springfield	85, 450	113, 800	23	27	113, 480	53, 900	221, 768	182, 712
Indiana:								
Anderson	38, 200	60, 900	14	18	78, 320	51, 050	150, 920	124, 190
Elkhart		49, 600		11		5, 285		84, 445
Evansville		125, 500		36		56, 125		208, 355
Fort Wayne	342, 061	365, 244	69	66	288, 940	88, 597	665, 090	559, 535
Gary		109, 500		24		850, 860		1, 020, 235
Hammond	126, 800	153, 000	32	34	377, 300	45, 400	537, 150	230, 700
Indianapolis		608, 650		132		839, 477		1, 563, 060
Kokomo		22, 700		6		273, 281		301, 971
Muncie		22, 334		8		16, 832		52, 491
Richmond		86, 400		22		37, 600		149, 658
South Bend		297, 230		63		185, 800		532, 435
Terre Haute	22, 800	19, 700	8	4	5, 580	13, 960	121, 340	51, 730
Michigan:								
Bay City		25, 000		7		62, 840		109, 692
Detroit	5, 135, 965	4, 203, 161	1, 194	960	3, 014, 736	3, 771, 178	9, 823, 611	9, 928, 308
Flint		634, 837		167		742, 266		1, 837, 829
Grand Rapids		142, 400		41		107, 950		377, 100
Hamtramck		15, 000		3		16, 325		67, 900
Highland Park		0		0		147, 765		174, 515
Jackson		136, 100		18		240, 536		444, 713
Kalamazoo		64, 225		9		204, 931		325, 716
Lansing		118, 025		30		119, 725		316, 345
Muskegon		84, 800		29		18, 855		141, 277
Pontiac		318, 400		90		209, 865		595, 595
Port Huron		14, 250		7		150		16, 100
Saginaw		180, 800		60		23, 894		263, 464
Ohio:								
Akron		462, 800		100		197, 330		759, 200
Ashtabula		20, 600		2		20, 800		48, 725
Cincinnati		716, 340		105		3, 662, 150		4, 712, 725
Cleveland		800, 000		160		813, 425		2, 087, 250
Columbus		309, 650		59		672, 250		1, 066, 850
Dayton		76, 800		15		195, 958		756, 720
East Cleveland		0		0		43, 967		45, 812
Hamilton		34, 600		11		4, 451		48, 204
Lima		0		0		6, 120		9, 665
Lorain	79, 850	54, 400	20	14	3, 219	7, 691	91, 494	76, 561
Mansfield		42, 100		9		32, 468		78, 885
Marion		11, 500		4		63, 220		78, 120
Newark		40, 100		11		5, 085		45, 885
Portsmouth	24, 300	20, 600	6	7	4, 343	10, 175	35, 528	36, 085
Springfield		47, 050		16		72, 215		139, 933

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ESTIMATED COST OF NEW BUILDINGS FOR WHICH PERMITS WERE ISSUED IN  
PRINCIPAL CITIES, AUGUST AND SEPTEMBER, 1929—Continued*East North Central States—Continued*

[Where no figures appear, the item was not reported]

City	New residential buildings				New nonresidential buildings, estimated cost		Total construction, including alterations and repairs, estimated cost	
	Estimated cost		Families provided for in new dwelling houses		August, 1929	September, 1929	August, 1929	September, 1929
	August, 1929	September, 1929	August, 1929	September, 1929				
Ohio—Continued.								
Steubenville		\$59,000		20		\$47,450		\$108,250
Toledo		325,900		74		208,865		639,456
Warren		91,300		28		17,420		126,785
Wisconsin:								
Fond du Lac		0		0		68,681		77,152
Green Bay		46,700		12		424,780		483,105
Kenosha		439,700		31		129,211		807,062
Milwaukee		1,269,350		320		1,180,334		2,804,573
Oshkosh		7,600		3		16,040		52,827
Racine		464,250		125		107,520		676,170
Sheboygan		77,900		15		256,709		353,323
Superior		15,600		3		14,550		52,129
Total		19,911,729		4,063		24,034,793		51,039,252

*West North Central States*

Iowa:								
Burlington		\$13,000		4		\$6,875		\$53,375
Cedar Rapids		42,050		10		75,131		160,143
Council Bluffs		9,000		2		43,000		83,400
Davenport		71,550		16		26,160		182,370
Des Moines		115,900		30		388,971		538,162
Dubuque		34,500		10		15,380		66,001
Ottumwa		33,500		7		239,050		276,000
Sioux City		55,200		15		94,150		153,950
Waterloo		90,875		22		48,460		148,725
Kansas:								
Hutchinson		30,500		13		3,095		41,180
Kansas City	\$62,300	54,950	28	24	\$111,000	254,038	\$186,225	317,528
Topeka		52,300		13		267,938		338,483
Wichita		414,120		123		489,124		987,159
Minnesota:								
Duluth		20,200		4		463,445		584,717
Minneapolis		400,380		77		370,250		1,076,590
St. Paul		300,444		57		903,157		1,346,254
Missouri:								
Joplin		14,700		4		23,000		39,397
Springfield	50,375	73,000	18	25	83,040	23,685	143,490	115,435
St. Joseph		44,550		11		2,126		150,389
St. Louis	911,950	725,450	294	252	798,376	874,627	1,710,326	2,403,764
Nebraska:								
Lincoln		135,450		28		19,320		167,445
Omaha		157,250		43		117,500		590,130
South Dakota:								
Sioux Falls		46,000		18		9,050		65,050
Total		2,934,869		808		4,757,532		9,885,647

*South Atlantic States*

Delaware:								
Wilmington	\$186,000	\$171,000	33	23	\$25,179	\$45,575	\$262,168	\$246,625
District of Columbia:								
Washington	1,245,450		215		674,905		2,197,365	

ESTIMATED COST OF NEW BUILDINGS FOR WHICH PERMITS WERE ISSUED IN  
PRINCIPAL CITIES, AUGUST AND SEPTEMBER, 1929—Continued

## South Atlantic States—Continued

[Where no figures appear, the item was not reported]

City	New residential buildings				New nonresidential buildings, estimated cost		Total construction, including alterations and repairs, estimated cost	
	Estimated cost		Families provided for in new dwelling houses					
	August, 1929	September, 1929	August, 1929	September, 1929	August, 1929	September, 1929	August, 1929	September, 1929
Florida:								
Jacksonville		\$64,350		25		\$100,536		\$236,071
Miami		9,700		4		168,130		237,199
Tampa	\$20,700	19,000	9	14	\$58,380	14,954	\$127,385	87,152
St. Petersburg		11,500		3		3,700		65,400
Georgia:								
Atlanta		252,800		69		492,336		833,756
Columbus		65,500		12		3,935		78,760
Macon	13,800	9,000	3	3	52,600	25,980	125,237	47,072
Savannah		41,700		11		22,315		72,015
Maryland:								
Baltimore	645,000	1,220,200	131	280	1,643,400	652,900	2,980,300	2,707,700
Cumberland	38,000	87,166	9	1	5,480	7,370	52,944	98,692
Hagerstown		27,700		6		96,540		125,315
North Carolina:								
Asheville		13,300		3		215,460		249,575
Charlotte		86,460		23		77,200		191,622
Durham		33,200		9		33,750		145,650
Greensboro		22,000		9		64,364		95,215
Winston-Salem		127,750		20		391,172		540,213
South Carolina:								
Charleston		3,800		3		1,765		65,795
Columbia		107,700		28		3,780		124,175
Greenville		40,100		12		165,200		228,545
Virginia:								
Newport News		43,500		9		45,160		108,150
Norfolk		66,100		17		65,860		157,455
Petersburg		16,500		4		1,480		31,100
Portsmouth		17,450		6		7,120		36,615
Richmond		104,064		16		40,373		262,678
Roanoke		72,400		20		78,703		157,668
West Virginia:								
Clarksburg		8,550		4		8,100		20,260
Huntington		5,500		3		54,900		62,400
Wheeling	20,000		4		49,225		118,560	
Total		2,748,590		637		2,888,658		7,312,874

## South Central States

Louisiana:								
New Orleans		\$129,730		38		\$468,255		\$727,917
Shreveport	\$126,373	171,833	42	59	\$108,379	96,488	\$378,412	312,251
Oklahoma:								
Muskogee		8,500		5		450		8,950
Oklahoma City	957,950	3,236,000	190	179	1,078,135	623,450	2,098,445	3,898,240
Okmulgee	0		0		10,000		25,700	
Tulsa		344,900		85		607,675		1,013,230
Texas:								
Austin		129,893		65		147,287		320,083
Beaumont		104,757		39		48,542		182,294
Dallas		190,400		63		459,864		759,558
El Paso		157,730		43		84,437		258,077
Fort Worth		275,825		107		1,082,910		1,411,397
Galveston		75,480		20		1,410		118,690
San Antonio		479,520		169		209,590		806,070
Waco		73,466		17		21,932		119,110
Wichita Falls		9,325		3		41,785		88,698
Alabama:								
Mobile		62,950		29		110,500		197,216

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ESTIMATED COST OF NEW BUILDINGS FOR WHICH PERMITS WERE ISSUED IN  
PRINCIPAL CITIES, AUGUST AND SEPTEMBER, 1929—Continued*South Central States—Continued*

[Where no figures appear, the item was not reported]

City	New residential buildings				New nonresidential buildings, estimated cost		Total construction, including alterations and repairs, estimated cost	
	Estimated cost		Families provided for in new dwelling houses		August, 1929	September, 1929	August, 1929	September, 1929
	August, 1929	September, 1929	August, 1929	September, 1929				
Kentucky:								
Newport	\$5,000		1		\$20,000		\$25,750	
Paducah	16,040	\$8,025	13	8	800	\$5,775	17,940	\$116,850
Tennessee:								
Knoxville		118,720		29		467,888		607,820
Memphis	280,370	319,215	65	100	11,765	237,510	321,697	679,484
Nashville	178,950		56		229,645		449,402	
Total		5,896,269		1,058		4,715,748		11,625,935

*Mountain and Pacific States*

Arizona:								
Phoenix		\$297,468		104		\$173,270		\$498,168
Tucson		96,750		22		\$6,475		150,460
Colorado:								
Colorado Springs		49,000		7		6,015		75,020
Denver		490,500		87		186,850		880,350
Pueblo		30,700		13		15,760		63,319
Utah:								
Ogden		17,500		7		80,700		105,400
California:								
Alameda		58,985		9		6,150		79,261
Berkeley		175,225		45		25,885		259,721
Fresno		46,050		11		62,952		174,418
Long Beach		621,350		209		385,495		1,037,330
Los Angeles		3,120,809		1,065		2,731,212		6,629,710
Oakland	\$640,128	374,210	214	100	\$127,142	1,033,895	\$903,305	1,715,994
Pasadena		273,570		24		570,610		996,790
San Diego		348,025		82		660,885		1,060,585
San Francisco		739,175		169		627,009		1,828,612
San Jose	103,910		85		119,265		258,760	
Stockton		27,550		9		263,110		309,045
Vallejo		16,000		4		41,690		74,450
Oregon:								
Portland		640,500		91		823,275		1,862,845
Washington:								
Everett		15,500		6		83,920		125,700
Seattle		661,250		174		385,020		1,443,290
Spokane		97,150		27		66,865		272,308
Tacoma		57,000		19		59,020		159,690
Total		8,244,267		2,284		8,326,063		19,802,466
Grand total (all districts)	(1)	70,105,124	(1)	12,854	(1)	78,854,075	(1)	174,157,317

<sup>1</sup> Incomplete returns and not totaled.

Schedules were received from 107 cities for both August and September. In these 107 cities permits totaled \$37,997,256 for new residential buildings during August, compared with \$45,666,064 in September, an increase of 20.2 per cent in September over August. The permits for nonresidential buildings, however, decreased from



August to September. In August the estimated cost of the new non-residential buildings for which permits were issued in these 107 cities was \$60,055,940, while in September only \$44,285,778 was spent for this class of structure. This was a decrease of 25.4 per cent in September as compared with August. The total permits in these 107 cities called for an expenditure of \$114,898,178 in August and \$104,474,391 in September, a decrease of 9.1 per cent in the latter month.

The number of families provided for in new dwellings in the 107 cities decreased from 6,992 in August to 6,844 in September, a falling off of 2.1 per cent.

Reports were received for September from 264 cities. The total estimated cost of residential buildings for which permits were issued in these cities during September was \$70,105,124. The estimated expenditure for nonresidential buildings was \$78,854,075, and for all building operations was \$174,157,317. It will be noticed that the expenditure for nonresidential buildings was greater by over \$8,000,000 than the expenditure for residential buildings. Of the total amount for which permits were issued in these 264 cities 40.3 per cent was for new residential buildings, 45.3 per cent for new non-residential buildings, and 14.4 per cent for alterations and repairs. Dwelling places were provided in new dwellings for 12,854 families during September.

Totals by districts are shown for September. The Middle Atlantic district, comprising the States of New Jersey, New York, and Pennsylvania, showed the largest expenditure for residential buildings, nonresidential buildings, and for total building operations. The East North Central district, however, provided the largest number of family accommodations in new dwellings.

# WAGES AND HOURS OF LABOR

## Wages and Hours of Labor in Rail, Bar, Sheet, and Tin-Plate Mills, 1929

THIS is the last of a series of three articles showing hours and earnings in the iron and steel industry in 1929. The present article covers rail mills, bar mills, sheet mills, and tin-plate mills,<sup>1</sup> and also presents averages for the industry as a whole, obtained by combining the data for all of the 10 departments.

### Scope of Survey

A SURVEY of all establishments in the United States in the several departments could not be undertaken in this wage study, as the time and expense involved would have been too great, but the statistics for the several departments may be accepted as being representative of conditions for the country as a whole. The establishments covered in the 1929 study numbered 208 and employed a total of 71,009 workers divided among the various departments as follows: Blast furnaces, 12,222; open-hearth furnaces, 13,171; Bessemer converters, 2,251; puddling mills, 1,800; blooming mills, 6,266; plate mills, 4,024; standard rail mills, 2,816; bar mills, 7,475; sheet mills, 12,598; and tin-plate mills, 8,386.

Table 1 shows the scope of the 1926 and 1929 studies, as well as the number of identical plants included in these two studies.

TABLE 1.—NUMBER OF PLANTS AND EMPLOYEES COVERED, 1926 AND 1929

Department	Plants covered		Employees		Identical plants			Per cent of change in number of employees, 1926 to 1929
	1926	1929	1926	1929	Number, 1926 and 1929	Employees		
						1926	1929	
Bar mills.....	35	39	7,605	7,475	28	6,112	5,057	-17
Standard-rail mills.....	7	7	3,280	2,816	7	3,280	2,816	-14
Sheet mills.....	14	15	10,573	12,598	12	9,393	9,698	+3
Tin-plate mills.....	8	8	8,892	8,386	8	8,892	8,386	-6

As is seen in Table 1, the establishments covered in 1929 are largely the same as those covered in 1926. The very striking feature is the reduction of the number of employees in identical plants. In all except the sheet mills, a decrease in labor force is noted. Thus 28 of the 39 bar mills secured in 1929 were identical with those of 1926, but

<sup>1</sup> Similar figures for six other departments of the industry may be found in the September and October issues of the Labor Review. Data for earlier years were given in Bul. No. 442 of this bureau.

these employed 17 per cent fewer workers than in 1926. The decreases in the employees of the other two departments amounted to 6 and 14 per cent, respectively.

Prior to 1929 all studies in the bar-mill department included hand-operated mills only. In more recent years there has been developed a new type of bar mill known as the continuous or semicontinuous mill in which mechanical appliances are to a greater or less extent doing away with handwork. This newer type of bar mill is included in the wage study of this year, for the first time.

The period covered in this survey was in nearly all instances a 15-day pay-roll period of the first half of March. Data for 1926 were taken for a 16-day pay-roll period, which for the most part was as of the last half of January.

### Trend of Hours and Earnings, 1913 to 1929

TABLE 2 shows the average hours and earnings in each of the four departments in each year in which studies were made, back to 1913. Index numbers computed from these averages are also given, 1913 being used as the base year or 100.

TABLE 2.—AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, AND FULL-TIME EARNINGS PER WEEK, TOGETHER WITH INDEX NUMBERS THEREOF FOR ALL EMPLOYEES IN FOUR DEPARTMENTS, 1913 TO 1929

Department and year	Averages			Index numbers (1913=100)		
	Full-time hours per week	Earnings per hour	Full-time earnings per week	Full-time hours per week	Earnings per hour	Full-time earnings per week
<b>Bar mills:</b>						
1913.....	61.5	\$0.288	\$17.71	100	100	100
1914.....	61.7	.278	17.15	100	97	97
1915.....	61.4	.266	16.33	100	92	92
1920.....	61.8	.713	44.06	100	248	249
1922.....	61.2	.486	29.74	100	169	168
1924.....	55.6	.585	32.53	90	203	184
1926.....	54.7	.591	32.33	89	205	183
1929.....	55.6	.625	34.75	90	217	196
<b>Standard-rail mills:</b>						
1913.....	70.9	.254	18.01	100	100	100
1914.....	70.1	.252	17.67	99	99	98
1915.....	70.9	.246	17.44	100	97	97
1920.....	61.2	.632	38.68	86	249	215
1922.....	61.5	.470	28.91	87	185	161
1924.....	57.4	.573	32.89	81	226	183
1926.....	55.5	.595	33.02	78	234	183
1929.....	56.0	.628	35.17	79	247	195
<b>Sheet mills:</b>						
1913.....	52.3	.483	25.26	100	100	100
1914.....	52.3	.488	25.52	100	101	101
1915.....	52.5	.450	23.63	100	93	93
1920.....	50.3	1.039	52.26	96	215	207
1922.....	51.1	.694	35.46	98	144	140
1924.....	50.2	.809	40.61	96	167	161
1926.....	48.9	.759	37.12	93	167	147
1929.....	48.9	.793	38.78	93	164	154
<b>Tin-plate mills:</b>						
1913.....	46.1	.417	19.22	100	100	100
1914.....	46.0	.425	19.55	100	102	102
1915.....	50.4	.428	21.57	109	103	112
1920.....	50.6	.949	48.02	110	228	250
1922.....	49.9	.650	32.44	108	156	169
1924.....	48.8	.795	38.80	106	191	202
1926.....	48.1	.704	33.86	104	169	176
1929.....	47.4	.732	34.70	103	176	181



*Bar mills.*—As shown in Table 2, average full-time hours per week for bar mills were 55.6 in 1929 as compared with 54.7 in 1926. This slight increase was due not to the inclusion of continuous or semi-continuous mills, but rather to an increase in working time in hand mills (the average for hand mills alone being 56). During the same period an increase of approximately 3½ cents per hour took place, part of which was due to the inclusion of continuous and semicontinuous mills, although some increase was shown in the hand group also. The average earnings per hour in 1929 were two and one-sixth times what they were in 1913. Average full-time weekly earnings amounted to \$34.75 in 1929—over 7 per cent more than in 1926 and almost double the weekly earnings in 1913.

*Standard-rail mills.*—Although an increase in average full-time hours per week of from 55.5 to 56.0 is shown from 1926 to 1929, the 1929 average is still 21 per cent less than that of 1913. Average earnings per hour rose from 59.5 cents in 1926 to 62.8 cents in 1929, while the full-time weekly earnings increased from \$33.02 to \$35.17, the 1929 earnings being almost twice as great as those for 1913.

*Sheet mills.*—Average full-time hours per week in this department show no change as between 1929 and 1926, the average for both years being 48.9. Average earnings per hour, however, show an increase of almost 3½ cents in 1929 as compared with 1926, while full-time weekly earnings rose from \$37.12 to \$38.78. The index number for weekly earnings is somewhat less than for hourly earnings, because of the decrease in full-time hours since 1913.

*Tin-plate mills.*—This department shows a slight decrease in average full-time hours per week in 1929—47.4 as compared with 48.1 in 1926. Average earnings per hour were 73.2 cents in 1929 as compared with 70.4 cents in 1926. The average hourly earnings of 1929 are one and three-fourths times as great as those of 1913, but 23 per cent less than those of 1920. Average weekly earnings were \$34.70 in 1929 as compared with \$33.86 in 1926 and 81 per cent greater than in 1913.

#### Trend in the Industry as a Whole

TABLE 3 presents similar averages and index numbers for the industry as a whole for the several years in which studies were made from 1913 to 1929.

TABLE 3.—AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, AND FULL-TIME EARNINGS PER WEEK, TOGETHER WITH INDEX NUMBERS COMPUTED THEREFROM, FOR ALL EMPLOYEES IN ALL DEPARTMENTS COMBINED, 1913 TO 1929

Year	Averages			Index numbers (1913=100)		
	Full-time hours per week	Earnings per hour	Full-time earnings per week	Full-time hours per week	Earnings per hour	Full-time earnings per week
1913.....	66.1	\$0.301	\$18.89	100	100	100
1914.....	64.9	.301	18.60	98	100	98
1915.....	65.5	.297	18.65	99	99	99
1920.....	63.1	.745	45.65	95	248	242
1922.....	63.2	.513	31.67	96	170	168
1924.....	55.2	.644	35.22	84	214	186
1926.....	54.4	.637	34.41	82	212	182
1929.....	54.6	.674	36.48	83	222	193

Although the average full-time working week was two-tenths of an hour longer in 1929 than in 1926, nevertheless the present working week is less than in any year prior to 1926 and almost 12 hours or 17 per cent less than in 1913. Average earnings per hour in 1929 were 67.4 cents—almost 4 cents per hour more than in 1926, though about 7 cents per hour less than the peak year of 1920; as compared with 1913, however, an increase of 122 per cent is shown. Average full-time earnings per week amounted to \$36.48 in 1929, representing an increase of 6 per cent over 1926 and 93 per cent over 1913. Because of the reduction in average hours per week, the weekly earnings did not increase over the period to the same extent as hourly rates.

### Hours and Earnings in Principal Occupations

TABLE 4 presents for the years 1926 and 1929 comparative figures for the principal occupations in each of the four departments.

*Bar mills.*—The 39 bar mills covered in the 1929 study employed 7,475 employees, of whom 5,745 were in the 31 hand mills and 1,730 in the 8 continuous mills; 4,521 employees are included in the 18 principal occupations presented separately in Table 4.

In all of the principal occupations, except that of stockers, average full-time weekly hours increased from 1926 to 1929. The largest increase in weekly hours occurred in the occupation of bundlers, where an increase of 3.6 hours per week was shown; only 19 of the 39 plants covered had these employees, however. The smallest increase (half an hour) was found in the occupation of hook-ups. Of the 18 principal occupations, only one, that of roll engineers, had a customary working week as long as 60 hours. In no occupation except that of heaters and roll engineers were any employees found working over 72 hours per week.

From 1926 to 1929 average earnings per hour increased in 14, and decreased in 4 occupations. The greatest decrease was in the occupation of drag-downs, whose hourly earnings fell from 59.3 cents to 55.4 cents. The occupation of laborers, which has the largest number of employees of any of the principal occupations, showed average hourly earnings of 39.9 cents in 1929, as compared with 41.1 cents in 1926. The largest increase in earnings per hour as between 1926 and 1929 occurred in the occupation of rollers, whose hourly earnings were \$1.699 and \$1.822, respectively.

Average full-time earnings per week increased in 16, and decreased in 2 occupations. The decreases occurred in the occupations of drag-downs and laborers. Full-time weekly earnings ranged from \$22.34 for laborers to \$100.21 for rollers.

*Standard-rail mills.*—These 7 mills employed during 1929 a total of 2,816 men, of whom 1,518 were in 21 principal occupations.

From 1926 to 1929, average full-time hours per week increased in 9 occupations and decreased in 11, the largest increase (3.2 hours) occurring among laborers, and the largest decrease (7.6 hours) among roll engineers. In the latter case the change shown was due to the difference in number of plants reporting rather than to a change of working time of identical plants. In one instance, cold-saw helpers, no change in average hours occurred. In no occupation were any employees working as long as 72 hours per week.



Average earnings per hour ranged from 40 cents for laborers to \$1.676 for rollers. Of the 21 principal occupations, 12 show an increase and 9 a decrease in earnings per hour. Hotbed men, whose hourly earnings in 1929 were 57.1 cents, show the largest increase, while rollers, with average hourly earnings of \$1.676 in 1929, show the largest decrease.

Average full-time weekly earnings increased in 16 occupations and decreased in 5. The largest increase (\$3.21) is noted in the occupation of chippers; and the largest decrease (\$12.66) in that of rollers, which was caused by a decrease in both full-time hours per week and average hourly earnings.

*Sheet mills.*—The 15 establishments covered by this study employed a total of 12,598 men, of whom 6,597 were found in 18 principal occupations.

When 1929 is compared with 1926, average full-time hours per week show an increase in 11 occupations, of which only 2 are increases of over one-half hour per week. Laborers show the largest increase, 4.1 hours per week, while feeders show an increase of 1.3 hours per week. The small increases which took place in the other occupations are due to the inclusion of an extra plant in 1929 and not to any change in the working time. The occupations of catchers and heaters show no change in full-time hours. Five out of the 18 principal occupations show decreases. Picklers' hours show a decrease of 4.9 hours, while the other occupations show decreases of less than one-half hour per week. As in 1926, only three occupations have any employees who customarily work a week of 72 hours or over, while most of the employees have a week of less than 48 hours.

Average earnings per hour increased in all occupations except laborers, whose earnings decreased from 47.5 cents in 1926 to 42.9 cents in 1929. This decrease was due almost entirely to a difference in the classification of "general labor" between the two years, and not to any appreciable change in rates in any plant. The largest increase in earnings per hour was found in the occupation of rollers, level-handed, whose earnings per hour were \$1.381 in 1929 as compared with \$1.162 in 1926.

Average full-time weekly earnings increased in all occupations except that of laborers, whose earnings show only a slight decrease because of the increase in average full-time hours per week, which about offsets the effect of the decrease in average hourly earnings.

*Tin-plate mills.*—The 8 plants covered have a labor force of 8,386 persons, of whom 4,859 were found in 23 principal occupations. Separate averages are presented, for the first time, for doublers, hand; doublers, mechanical; doublers' helpers, hand; pair heaters; single boys; and tanners, machine. The averages for earlier years for doublers and doublers' helpers include both hand and machine work, while those for tanners covered only tanners doing handwork.

From 1926 to 1929 no change in average full-time hours per week was shown in any occupations of the hot-mill crews, but some change in hours took place in certain occupations working on the product after it leaves the hot mills. The working week of assorters increased 2.7 hours, while that of openers and laborers decreased 3.5 and 3.2 hours, respectively. In only two occupations—laborers and branners—are there any employees who have a customary working week of more than 60 hours.



Average earnings per hour increased in 12 and decreased in 4 of the 16 occupations for which comparative figures for 1926 are shown. The occupation of rollers shows the largest increase, the average for 1929 being \$1.778 as compared with \$1.635 in 1926. There were significant increases also for roughers, catchers, and heaters. The greatest reduction as between the two years was found in the occupation of openers, whose average hourly rate in 1929 is 68.5 cents as compared with 79.5 cents in the preceding study. The earnings per hour for laborers show practically no change.

Average full-time weekly earnings ranged from \$17.01 for assorters to \$75.92 for rollers. The greatest change in weekly earnings was found in the occupation of openers, whose earnings decreased from \$41.18 in 1926 to \$33.09 in 1929. This change was brought about through a reduction in both hourly earnings and average full-time hours per week. Weekly earnings of laborers decreased from \$25.69 in 1926, to \$24.10 in 1929, a change almost wholly caused by the reduction in working time, as hourly earnings show only a very slight change.

TABLE 4.—AVERAGE CUSTOMARY FULL-TIME HOURS PER WEEK, AVERAGE EARNINGS PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS OF PRINCIPAL OCCUPATIONS IN THE IRON AND STEEL INDUSTRY, 1926 AND 1929

*Bar Mills*

Occupation	Year	Number of plants	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Per cent of employees whose average full-time hours per week were—					
							48 and under	Over 48 and under 60	60	Over 60 and under 72	72	Over 72 and under 84
Stockers.....	1926	28	305	54.2	\$0.519	\$28.13	27	36	34	3		
	1929	30	304	53.5	.530	28.36	31	44	21	5		
Heaters.....	1926	33	181	54.4	.957	52.06	39	14	27	20		
	1929	37	174	56.1	1.064	59.69	31	20	13	34	2	(1)
Heaters' helpers.....	1926	33	273	54.3	.632	34.32	36	29	25	10		
	1929	33	198	55.8	.675	37.67	30	29	19	14	8	
Chargers and helpers.....	1926	28	234	53.5	.551	29.48	38	31	25	5		
	1929	32	242	56.1	.554	31.08	24	44	16	12	5	
Drag-downs.....	1926	27	142	55.3	.593	32.79	30	25	42	4		
	1929	24	132	55.9	.554	30.97	36	14	27	19	5	
Roll engineers.....	1926	25	111	58.0	.582	33.76	31	17	18	39		
	1929	20	68	60.1	.563	33.84	13	37	6	31	9	3
Rollers.....	1926	35	134	53.2	1.609	90.39	40	36	21	3		
	1929	39	127	55.0	1.822	100.21	26	42	19	12	2	
Roughers.....	1926	35	259	53.2	.847	45.06	30	38	31	2		
	1929	31	195	55.8	.887	49.49	21	41	25	11	3	
Catchers.....	1926	35	208	53.3	.865	46.10	33	36	30	1		
	1929	31	155	55.8	.874	48.77	25	35	24	12	4	
Stranders.....	1926	33	389	51.8	.741	38.38	44	35	19	1		
	1929	30	307	54.3	.820	44.53	28	38	15	18	2	
Finishers.....	1926	33	159	53.0	.848	44.94	38	38	21	2		
	1929	34	147	53.9	.952	51.31	30	44	18	7	2	
Hook-ups.....	1926	29	207	54.8	.623	34.14	28	30	41	1		
	1929	27	172	55.3	.650	35.95	31	22	31	13	2	
Roll hands, other.....	1926	25	230	52.9	.683	36.13	44	23	31	2		
	1929	28	320	55.1	.797	43.91	18	54	17	11	(1)	
Hotbed men.....	1926	33	532	53.0	.556	29.47	39	36	21	4		
	1929	36	545	54.5	.601	32.75	22	53	17	7	1	
Shearmen.....	1926	32	176	52.4	.616	32.28	44	32	22	2		
	1929	35	163	54.4	.735	39.98	27	42	21	9	1	
Shearmen's helper.....	1926	31	601	52.3	.522	27.30	42	21	34	2		
	1929	34	534	54.7	.542	29.65	24	40	26	8	2	
Bundlers.....	1926	14	99	49.7	.552	27.43	61	29	9			
	1929	19	131	53.3	.543	28.94	40	47	7	6		
Laborers.....	1926	34	854	55.0	.411	22.61	36	28	24	11		
	1929	38	607	56.0	.399	22.34	11	58	22	8	(1)	

<sup>1</sup> Less than 1 per cent.

TABLE 4.—AVERAGE CUSTOMARY FULL-TIME HOURS PER WEEK, AVERAGE EARNINGS PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS OF PRINCIPAL OCCUPATIONS IN THE IRON AND STEEL INDUSTRY, 1926 AND 1929—Continued

## Rail mills

Occupation	Year	Num- ber of plants	Num- ber of employ- ees	Aver- age full- time hours per week	Aver- age earn- ings per hour	Aver- age full- time earn- ings per week	Per cent of employees whose average full-time hours per week were—			
							48 and under	Over 48 and under 60	60	Over 60 and under 72
Charging machine opera- tors.....	1926	2	20	54.8	\$0.713	\$39.07	75	—	—	25
	1929	3	13	54.5	.718	39.13	46	23	—	31
Reheaters.....	1926	3	9	53.1	1.034	54.91	44	33	—	22
	1929	4	13	51.3	1.073	55.04	31	69	—	—
Reheaters' helpers.....	1926	3	14	53.6	.627	33.61	50	36	7	7
	1929	4	15	54.9	.651	35.74	27	47	13	13
Roll engineers.....	1926	5	19	57.4	.757	43.45	32	26	—	42
	1929	2	9	49.8	.705	35.11	67	33	—	—
Rollers.....	1926	5	11	54.2	1.888	102.33	27	45	9	18
	1929	6	15	53.5	1.676	89.67	33	40	13	13
Assistant rollers.....	1926	6	14	55.3	1.015	56.13	29	35	21	14
	1929	6	16	54.6	.993	54.22	19	56	13	13
Table lever men.....	1926	7	66	53.5	.747	39.96	33	42	15	9
	1929	7	70	52.7	.770	40.58	41	43	10	6
Tablemen.....	1926	3	21	58.3	.687	40.05	14	38	—	48
	1929	2	14	60.1	.670	40.27	29	—	—	71
Guide setters.....	1926	7	31	56.9	.836	47.57	10	45	26	19
	1929	7	34	55.0	.835	45.93	15	56	12	18
Hot saw men.....	1926	7	22	54.5	.696	37.93	27	37	27	9
	1929	7	21	53.3	.681	36.30	24	57	10	10
Hot-saw helpers.....	1926	6	56	56.6	.509	28.81	11	38	30	22
	1929	6	34	56.0	.519	29.06	15	59	—	26
Hotbed levermen.....	1926	7	51	54.1	.564	30.51	29	43	16	12
	1929	7	58	53.3	.601	32.03	28	59	3	10
Hotbed men.....	1926	6	78	54.1	.518	28.02	15	64	14	6
	1929	6	87	53.9	.571	30.78	14	82	—	5
Straighteners, gag press.....	1926	7	138	53.0	1.233	65.35	28	55	17	—
	1929	7	146	54.1	1.229	66.49	31	49	8	13
Straighteners' helpers.....	1926	7	214	53.7	.590	31.68	38	40	13	9
	1929	7	183	54.1	.625	33.81	37	38	5	19
Chippers.....	1926	7	145	55.3	.695	38.43	25	37	25	14
	1929	6	121	56.2	.741	41.64	26	40	8	25
Drillers and punchers.....	1926	7	233	55.4	.675	37.40	22	40	25	13
	1929	7	231	55.7	.717	39.94	29	29	12	30
Cold-saw men.....	1926	7	20	53.2	.540	28.73	65	—	25	10
	1929	7	21	54.1	.532	28.78	57	—	19	24
Cold-saw helpers.....	1926	6	122	54.6	.447	24.41	56	1	32	11
	1929	6	70	54.6	.481	26.26	44	—	46	10
Inspectors.....	1926	7	85	55.2	.591	32.62	15	49	26	9
	1929	7	102	56.0	.617	34.55	23	40	18	20
Laborers.....	1926	6	234	56.6	.421	23.83	34	(1)	55	10
	1929	6	245	59.8	.400	23.92	20	—	44	36

## Sheet mills

Occupation	Year	Num- ber of plants	Num- ber of employ- ees	Aver- age full- time hours per week	Aver- age earn- ings per hour	Aver- age full- time earn- ings per week	Per cent of employees whose average full-time hours per week were—				
							Over 40 and under 44	44 and under 48	Over 48 and under 60	Over 60 and under 72	72 and over
Pair heaters.....	1926	13	478	43.3	\$0.925	\$40.05	86	14	—	—	—
	1929	15	580	43.4	.953	41.36	73	27	—	—	—
Rollers.....	1926	14	492	43.3	1.956	84.69	76	24	—	—	—
	1929	15	546	43.4	1.979	85.89	75	25	—	—	—
Rollers, level handed.....	1926	4	27	43.3	1.162	50.31	78	22	—	—	—
	1929	8	41	43.1	1.381	59.52	83	17	—	—	—

<sup>1</sup> Less than 1 per cent.

TABLE 4.—AVERAGE CUSTOMARY FULL-TIME HOURS PER WEEK, AVERAGE EARNINGS PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS OF PRINCIPAL OCCUPATIONS IN THE IRON AND STEEL INDUSTRY, 1926 AND 1929—Continued

## Sheet mills—Continued

Occupation	Year	Number of plants	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Per cent of employees whose average full-time hours per week were—					
							Over 40 and under 44	44 and under 48	48	Over 48 and under 60	Over 60 and under 72	72 and over
Rollers' helpers or finishers.....	1926	12	392	43.0	\$0.787	\$33.84	88	12				
	1929	14	448	43.2	.826	35.68	81	19				
Roughers.....	1926	14	510	43.3	1.037	44.90	77	23				
	1929	15	581	43.4	1.067	46.31	73	27				
Catchers.....	1926	14	527	43.3	.989	42.82	76	24				
	1929	15	576	43.3	1.017	44.04	78	22				
Matchers.....	1926	10	400	43.5	.829	36.06	68	32				
	1929	12	495	43.6	.894	38.98	65	35				
Doublers.....	1926	10	422	43.5	.804	34.97	70	30				
	1929	11	524	43.6	.870	37.93	65	35				
Sheet heaters.....	1926	14	478	43.3	1.404	60.79	77	23				
	1929	15	540	43.3	1.432	62.01	76	24				
Sheet heaters, level handed.....	1926	7	48	43.2	.978	42.25	81	19				
	1929	7	34	43.6	1.054	45.95	62	38				
Sheet heaters' helpers.....	1926	13	422	42.9	.803	34.45	91	9				
	1929	14	525	43.1	.841	36.25	86	14				
Shearmen.....	1926	12	198	43.6	1.222	53.28	69	30	1	1		
	1929	14	287	43.5	1.227	53.37	70	30				
Shearmen's helpers.....	1926	12	207	43.6	.683	29.78	67	32	(1)	(1)		
	1929	14	281	43.5	.712	30.97	69	31				
Openers.....	1926	11	287	43.5	.741	32.23	70	29	1			
	1929	11	370	43.2	.754	32.57	81	19				
Openers, level handed.....	1926	5	96	44.0	.651	28.64	50	50				
	1929	5	106	44.1	.686	30.25	52	48				
Picklers.....	1926	11	127	56.9	.631	35.90	6	14	24	34	17	4
	1929	14	125	52.0	.713	37.08	26	33	11	19	6	4
Feeders.....	1926	8	93	45.3	.647	29.31	58	25	12			5
	1929	10	90	46.6	.709	33.04	60	26	10			4
Laborers.....	1926	14	493	56.6	.475	26.89	10	21	27	22	13	7
	1929	15	448	60.7	.429	26.04	(1)	2	33	46	6	13

## Tin-plate mills

Occupation	Year	Number of plants	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Per cent of employees whose average full-time hours per week were—					
							Over 40 and under 44	44 and under 48	48	Over 48 and under 60	Over 60 and under 72	
Rollers.....	1926	8	371	42.7	\$1.635	\$69.81	100					
	1929	8	378	42.7	1.778	75.92	100					
Rollers, level-handed.....	1926	4	35	42.7	.952	40.65	100					
	1929	5	65	42.7	.949	40.52	100					
Roughers.....	1926	8	383	42.7	.902	38.52	100					
	1929	8	401	42.7	1.014	43.30	100					
Catchers.....	1926	8	398	42.7	.806	34.42	100					
	1929	8	382	42.7	.926	39.54	100					
Screw boys.....	1926	8	412	42.7	.633	27.03	100					
	1929	8	408	42.7	.691	29.51	100					
Doublers.....	1926	8	332	42.7	.787	33.60	100					
Doublers, hand.....	1929	4	193	42.7	.912	38.94	100					
Doublers, mechanical.....	1929	5	229	42.7	.679	28.99	100					
Doublers, level-handed.....	1926	5	116	42.7	.800	34.16	100					
Doublers, level-handed, hand.....	1929	3	45	42.7	.824	35.18	100					
Doublers' helpers.....	1926	8	324	42.7	.663	28.31	100					

<sup>1</sup> Less than 1 per cent.



TABLE 4.—AVERAGE CUSTOMARY FULL-TIME HOURS PER WEEK, AVERAGE EARNINGS PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS OF PRINCIPAL OCCUPATIONS IN THE IRON AND STEEL INDUSTRY, 1926 AND 1929—Continued

*Tin plate mills—Continued*

Occupation	Year	Num- ber of plants	Num- ber of em- ploy- ees	Aver- age full- time hours per week	Aver- age earn- ings per hour	Aver- age full- time earn- ings per week	Per cent of employees whose average full-time hours per week were—					
							Over 40 and un- der 44	44 and un- der 48	48	Over 48 and un- der 60	60	Over 60 and un- der 72
Doublers' helpers, hand.....	1929	3	156	42.7	\$0.702	\$29.98	100					
Pair heaters.....	1929	5	187	42.7	.795	33.95	100					
Single boys.....	1929	5	299	42.7	.732	31.26	100					
Heaters.....	1926	6	113	42.7	1.046	44.66	100					
	1929	8	121	42.7	1.159	49.49	100					
Heaters, level-handed.....	1926	8	588	42.7	.917	39.16	100					
	1929	8	604	42.7	.982	41.93	100					
Heaters' helpers.....	1926	6	196	42.7	.772	32.96	100					
	1929	8	180	42.7	.811	34.63	100					
Shearmen.....	1926	7	111	43.1	1.024	44.13	82	18				
	1929	7	110	42.9	1.076	46.16	81	19				
Openers, male.....	1926	6	239	51.8	.795	41.18	6	25		69		
	1929	7	253	48.3	.685	33.09	9	50		41		
Tinners, hand.....	1926	5	225	43.5	.840	36.54	97		3			
	1929	6	164	43.7	.907	39.64	96		4			
Tinners, machine.....	1929	4	84	43.4	.794	34.46	86		14			
Redippers.....	1926	2	25	42.9	1.154	49.51	100					
	1929	2	20	42.9	1.158	49.68	100					
Risers.....	1926	2	34	42.9	.638	27.37	100					
	1929	2	24	43.0	.639	27.48	100					
Branners.....	1926	5	64	52.2	.505	26.36	45	11	9	3		31
	1929	4	51	49.6	.600	29.76	65	6				30
Assorters, female.....	1926	4	250	43.4	.384	16.67	38	62				
	1929	5	254	46.1	.369	17.01	39	30	1	30		
Laborers.....	1926	8	188	60.3	.426	25.69				50	31	19
	1929	8	251	57.1	.422	24.10				67	31	2

**Recent Changes in Wages and Hours of Labor**

AS A PART of the questionnaire sent by the Bureau of Labor Statistics each month to over 13,000 representative manufacturing establishments, asking for changes in employment and the amount of the pay roll, the establishments are asked to report any general wage changes that have taken place in the preceding month.

Recently the bureau expanded the scope of its inquiry by including labor organizations. The bureau consults newspapers, labor journals, etc., for news items of changes in wages and hours of the membership of trade-unions. When a published item of this kind is found, a questionnaire is sent to officials of the union for a confirmation or revision of the published statement. The information the bureau has collected in the last four months is here presented.

In this period a record was obtained of changes in wages or in hours of 291,183 organized workers. Only one report of a decrease in wages has come to the attention of the bureau, that of weavers in New York City, estimated at \$8 per week; all other wage changes are increases.

The particularly striking fact in this table is that 237,674 organized workers are reporting as having obtained a 5-day week. Nearly all of these organized workers are in the building trades and the greater part of them are in New York City.

Table 1, it will be observed, shows many reductions to a 40-hour week with no change in the hourly rate. This means, of course, a reduction

in full-time weekly earnings. No information is available as to whether work was more regular under the 40-hour week than in the week of longer hours, and hence no information is available as to the effect of the change on actual weekly earnings. In many instances there were changes in the wage rate that practically compensated for the reduction in hours, leaving full-time weekly earnings about the same.

The wages and hours shown in Table 1 cover a great variety of workers in many industrial groups, the principal group being the building trades. In that industry, changes in hours or wages or both are shown for approximately 270,000 workers in widely scattered sections of the country. Of this number, 84 per cent went on the 5-day week basis between June 1 and October 6. Among the trades represented as obtaining the 5-day week in specified localities are asbestos workers, carpenters, inside wiremen (electricians), lathers, painters, plasterers, plumbers, steamfitters, structural-iron workers, tile setters, and all building trades in the three cities of Pittsburgh, Cleveland, and New York City. Other occupations showing the 5-day week are brick and tile workers, clothing workers, and some miscellaneous trades.

The rate of wage increase in the building trades varied from 2½ cents per hour, obtained by the carpenters of Erie, Pa., the hod carriers of Youngstown, Ohio, and the sheet-metal workers of Dayton, Ohio, to 25 cents per hour for plasterers in Tucson, Ariz.; in the majority of cases the increase was about 12½ cents per hour. In the case of chauffeurs, teamsters and drivers, the predominant increase was \$3 per week. Pay increases in the printing and publishing industry ranged from 25 cents to \$5 per week, the majority being \$1 or slightly less.

TABLE 1.—CURRENT UNION WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY

Industry, occupation, and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Barbers: Chicago, Ill.	June 10	<sup>1</sup> \$30.00	<sup>2</sup> \$32.00	66½	66½
Brick and tile workers, Chicago, Ill. (selected rates):					
Clay pit—					
Steam shovel—					
Engineer	June 2	<sup>1</sup> \$1.05	<sup>2</sup> \$1.05	45	40
Cranemen	do	.88	.88	45	40
Firemen	do	.82	.82	45	40
Man in front of shovel	do	.85	.85	45	40
Drivers and other workers in clay hole	do	.80	.80	45	40
Machine house—					
Hoist men	do	.84	.84	45	40
Extra men to shovel dry stuff	do	.80	.80	45	40
Pug mill men	do	.84	.84	45	40
Machine men	do	.95	.95	45	40
Belt room—					
Belt men	do	.88	.88	45	40
Cut-off men	do	.96	.96	45	40
Hand transfer	do	.82	.82	45	40
Brick setting—					
Dryer men	do	.82	.82	45	40
Controller men (3-car transfer)	do	.85	.85	45	40
Operators of electric cranes	do	.88	.88	45	40
Bottoms men	do	.82	.82	45	40

<sup>1</sup> 60 per cent over \$42.

<sup>2</sup> 60 per cent over \$44.

TABLE 1.—CURRENT UNION WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY—Continued

Industry, occupation, and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Brick and tile workers, Chicago, Ill. (selected rates)—Con.					
Brick burning—		<i>Per hour</i>	<i>Per hour</i>		
Head burners.....	June 2	\$0.90	\$0.90	45	40
Second burners.....	do.	.87	.87	45	40
Burned brick handlers—					
Loading burned brick in cars from machine-set kilns, 45 bricks high.....	do.	.73	.73	45	40
Loading brick in drop-end gondola cars.....	do.	.90	.90	45	40
Loading drop-end, etc., cars on builders' yard.....	do.	.95	.95	45	40
Machine loading on wagon, etc.—					
Operators of electric cranes.....	do.	.88	.88	45	40
Helpers.....	do.	.82	.82	45	40
Walling gangs—					
Walling and daubing per arch, round top, 45 bricks high.....	do.	4.80	4.80	45	40
Walling and daubing on builder's brick company yard, per kilns of 20 arches.....	do.	99.00	99.00	45	40
Engine and boiler room—					
Stationary engineers.....	do.	1.05	1.05	45	40
Coal passers.....	do.	.80	.80	45	40
Independent furnace men.....	do.	.85	.85	45	40
Miscellaneous—					
General repair men.....	do.	.95	.95	45	40
Roustabouts.....	do.	.80	.80	45	40
Building trades:					
Asbestos workers—					
Omaha, Nebr.....	Aug. 2	1.25	1.28	44	40
Cleveland, Ohio.....	June 1	1.37½	1.42½	44	40
Bricklayers—					
Lorain, Ohio.....	do.	1.50	1.56¼	44	44
New Castle, Pa.....	July 1	1.50	1.62½	48	48
Bricklayers and masons, Chicago, Ill.....	Oct. 1	1.62½	1.70	44	44
Carpenters—					
Newark, N. J.....	do.	1.50	1.65	44	40
Millmen.....	do.	.90	1.00	44	40
Store-fixture men—					
Inside.....	do.	1.10	1.17½	44	40
Outside.....	do.	1.50	1.65	44	40
Tacoma, Wash.....	June 15	1.00	1.00	44	40
South Bend, Ind.....	Aug. 1	1.05	1.10	44	40
Shreveport, La.....	Sept. 1	1.00	1.12½	48	48
Rockford, Ill.....	June 1	1.10	1.15	48	48
Erie, Pa.....	Aug. 1	1.10	1.12½	44	44
Chicago, Ill.....	Oct. 1	1.56¼	1.62½	44	44
Carpenters, joiners, etc., New York City.....	Aug. 24	1.50	1.65	44	40
Cement finishers—					
Chicago, Ill.....	Oct. 1	1.56¼	1.62½	44	44
Shawnee, Okla.....	June 1	1.37½	1.50	48	44
Hod carriers, Youngstown, Ohio.....	July 1	.95	.97½	48	48
Inside wire men—					
Philadelphia, Pa.....	Sept. 1	1.18¾	1.25	44	40
Oil City, Pa.....	June 22	1.00	1.12½	44	44
West Haven, Conn.....	Aug. 1	1.06¼	1.12½	44	44
Laborers—					
Youngstown, Ohio.....	July 1	.70	.72½	48	48
Denver, Colo.....	July 25	.50	.62½	48	48
Lathers, Boston, Mass.....	July 1	1.37½	1.50	40	40
Painters—					
Washington, D. C.....	Sept. 1	1.25	1.37½	44	40
Reading, Pa.....	June 15	.90	1.00	44	40
Plasterers—					
Tucson, Ariz.....	June 5	1.12½	1.37½	48	48
Shawnee, Okla.....	June 1	1.50	1.62½	48	44
Plasterers and shopmen, Indianapolis, Ind.....	do.	1.57½	1.57½	44	40
Plumbers, journeymen—					
Boston, Mass.....	Sept. 1	1.37½	1.50	44	40
New York City.....	Aug. 1	1.50	1.65	44	40
Manchester, N. H.....	June 1	1.05	1.12½	44	40
Sheet-metal workers—					
Washington, D. C.....	do.	1.37½	1.43¾	44	44
Dayton, Ohio.....	do.	1.22½	1.25	44	44
Slate and tile roofers.....	do.	(9)	1.25	44	44

<sup>a</sup> Rate per thousand.<sup>b</sup> Rate per arch.<sup>c</sup> Not reported.



TABLE 1.—CURRENT UNION WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY—Continued.

Industry, occupation, and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
<b>Building trades—Continued.</b>					
Steamfitters, journeymen—		<i>Per hour</i>	<i>Per hour</i>		
Madison, Wis.	July 1	\$1.25	\$1.37½	44	40
Washington, D. C.	June 1	1.37½	1.50	44	44
Steamfitters' helpers—					
Washington, D. C.	do.	.75	.82½	44	44
North Cambridge, Mass.	Aug. 15	1.37½	1.50	44	40
Structural-iron workers—					
Chicago, Ill.	June 1	1.50	1.62½	44	44
St. Louis, Mo.	June 21	1.50	1.62½	44	40
Tile layers and marble masons, Rochester, N. Y.	June 1	1.31¼	1.37½	44	44
Tile setters, Mosaic, etc., Washington, D. C.	do.	1.50	1.50	44	40
All building trades—					
Pittsburgh, Pa.	Oct. 6	( <sup>5</sup> )	( <sup>5</sup> )	44	40
Cleveland, Ohio.	Aug. 31	( <sup>5</sup> )	( <sup>5</sup> )	44	40
New York City.	Aug. 24	( <sup>5</sup> )	( <sup>5</sup> )	44	40
<b>Chauffeurs and teamsters:</b>					
Chauffeurs, San Francisco, Calif.	June 11	<i>Per week</i> \$30.00	<i>Per week</i> \$34.50	54	54
Drivers and inside help (milk), Pittsburgh, Pa.	July 10	31.50	35.00	( <sup>5</sup> )	( <sup>5</sup> )
Team and autotruck drivers—					
San Francisco, Calif.	Aug. 12	33.00	36.00	54	54
Do.	do.	36.00	39.00	54	54
Do.	do.	39.00	42.00	54	54
Do.	do.	42.00	45.00	54	54
Do.	do.	45.00	48.00	54	54
Do.	do.	48.00	51.00	54	54
Clothing industry: Raincoat makers, New York City.	( <sup>5</sup> )	44.00	44.00	44	40
Laundry industry, Butte, Mont.:					
Female workers.	July 1	17.00	19.00	48	48
Do.	do.	21.00	22.00	48	48
Male workers.	do.	27.00 to 35.00	29.50 to 37.50	48	48
<b>Lumber and timber industry:</b>					
Common labor and semiskilled sawmill workers, Portland, Oreg.	do.	28.80	32.00	48	48
<b>Metal trades:</b>					
Boilermakers, St. Louis, Mo.	June 27	<i>Per hour</i> \$0.90	<i>Per hour</i> \$0.95	48	48
Boilermakers' helpers, St. Louis, Mo.	do.	.70	.75	48	48
<b>Mining: Mine workers, Yorkville, Ohio.</b>					
	June 15	<i>Per day</i> \$5.00	<i>Per day</i> \$4.00	48	48
<b>Motion-picture and theatrical industry:</b>					
Musicians—		<i>Per week</i>	<i>Per week</i>		
Detroit, Mich.	Sept. 1	\$65.00	\$70.00	( <sup>5</sup> )	( <sup>5</sup> )
Do.	do.	70.00	80.00	( <sup>5</sup> )	( <sup>5</sup> )
Leaders, New Orleans, La.	do.	94.62	96.42	42	42
Pitmen, New Orleans, La.	do.	63.28	66.44	42	42
Organists—					
New Orleans, La.	do.	70.00	73.50	42	42
Second-run theaters, New Orleans, La.	do.	33.96	35.66	25½	25½
Stage employees, Cleveland, Ohio.	do.	70.00	75.00	46	46
<b>Printing and publishing industry:</b>					
Compositors and machine operators—					
Port Huron, Mich.—					
Job work.	do.	38.50	40.48	44	44
Newspapers.	do.	42.00	44.16	48	48
Multnomah, Oreg.—					
Newspapers, day.	June 3	48.00	51.00	46	46
Newspapers, night.	do.	51.00	54.00	46	46
Pittsburgh, Pa.—					
Newspapers, day.	July 1	57.00	58.00	45	45
Newspapers, night.	do.	60.00	61.00	45	45
New Haven, Conn.—					
Newspapers, day.	June 1	44.00	45.00	48	48
Newspapers, night.	do.	47.00	48.00	48	48
Milwaukee, Wis., job work.	Sept. 1	45.00	46.00	44	44
Madisonville, Ky., newspapers.	June 17	30.00	35.00	44	44

<sup>4</sup> Not reported.

<sup>5</sup> 40 hours from January through August.

<sup>7</sup> No change.

<sup>8</sup> Approximately 10 per cent increase.

<sup>9</sup> Hours irregular.

TABLE 1.—CURRENT UNION WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY—Continued

Industry, occupation, and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Printing and publishing industry—Continued.					
Compositors and machine operators—Continued.					
Jackson, Mich.—		<i>Per week</i>	<i>Per week</i>		
Newspapers, day	Aug. 2	\$42.00	\$45.00	48	48
Newspapers, night	do.	44.00	48.00	48	48
Independence, Kans., job work, day	June 1	35.00	36.00	48	48
Everett, Wash.—					
Newspapers, day	Aug. 11	47.40	48.00	45	45
Newspapers, night	do.	50.40	51.00	45	45
Denver, Colo.—					
Newspapers, day	Sept. 1	50.50	50.75	44	44
Newspapers, night	do.	54.00	54.25	44	44
Auburn, N. Y.—					
Job work, day	Aug. 1	36.20	36.67	44	44
Job work, night	do.	38.94	39.41	48	48
Newspapers, day	do.	39.00	40.00	44	44
Newspapers, night	do.	42.00	43.00	48	48
Electrotypers—					
Lincoln, Nebr., job work	July 1	42.66	43.50	48	48
Columbus, Ohio—					
Newspapers, day	Sept. 1	42.00	45.00	48	48
Newspapers, night	do.	45.00	48.00	48	48
Cleveland, Ohio—					
Newspapers, day	June 1	44.00	45.00	48	44
Newspapers, night	do.	48.00	49.00	48	44
Stereotypers—					
Lincoln, Nebr.	July 1	42.66	43.50	48	48
St. Joseph, Mo.—					
Newspapers, day	June 1	42.00	43.00	48	48
Newspapers, night	do.	45.00	46.00	48	48
Springfield, Ill.—					
Newspapers, day	do.	46.00	46.50	48	48
Newspapers, night	do.	48.00	48.50	48	48
Milwaukee, Wis.—					
Newspapers, day	( <sup>9</sup> )	( <sup>9</sup> )	48.33	48	48
Newspapers, night	( <sup>9</sup> )	( <sup>9</sup> )	51.51	48	48
Elmira, N. Y.—					
Newspapers	Sept. 6	44.00	45.00	48	48
Newspapers, foreman	do.	47.00	49.00	36	42
San Antonio, Tex.	Aug. 16	46.50	48.00	48	48
Schenectady, N. Y.—					
Newspapers, day	June 1	52.00	53.00	48	48
Newspapers, night	do.	55.00	56.00	48	48
Miscellaneous:		<i>Per hour</i>	<i>Per hour</i>		
Street-car employees, platform men, etc., Cincinnati, Ohio	July 1	\$0.53 .56 .58	\$0.55 .58 .60	10 9	11 8
Municipal clerks, highway employees, etc., Revere, Mass.	do.	( <sup>9</sup> )	( <sup>9</sup> )	48	12 40
Commercial telegraphers—		<i>Per week</i>	<i>Per week</i>		
Cities under 150,000, day	July 2	\$44.75	\$50.25	48	48
Cities of 150,000 up to 500,000, day	do.	47.25	52.75	48	48
Cities under 100,000, night	do.	50.25	59.75	48	48
Cities of 100,000 and over	do.	56.75	59.75	48	48
New York-Chicago, relay offices	do.	63.25	66.25	48	48
Other relays	do.	60.75	63.75	48	48
Weavers, New York City	Aug. -	( <sup>9</sup> )	( <sup>10</sup> )	42 48	42 48

<sup>9</sup> Not reported.<sup>10</sup> Per day.<sup>11</sup> Per day; hours vary according to run.<sup>12</sup> Tentative.<sup>13</sup> Piecework, reduction estimated at \$3 per week.

## Wage Changes in Manufacturing Industries

SIXTY ESTABLISHMENTS in 19 industries reported wage-rate increases during the month ending September 15, 1929. These increases averaged 6.6 per cent and affected 3,255 employees, or 18 per cent of all employees in the establishments concerned.

Eleven establishments in six industries reported wage-rate decreases during the same period. These decreases averaged 9.6 per cent and affected 777 employees, or 46 per cent of all employees in the establishments concerned.

During the last eight months 383 car shops have reported wage-rate increases made to more than 63,000 employees.

TABLE 2.—WAGE ADJUSTMENTS OCCURRING BETWEEN AUGUST 15 AND SEPTEMBER 15, 1929

Industry	Establishments		Per cent of increase or decrease in wage rates		Employees affected		
	Total number reporting	Number reporting increase or decrease in wage rates	Range	Average	Total number	Per cent of employees	
						In establishments reporting increase or decrease in wage rates	In all establishments reporting
			Increases				
Slaughtering and meat packing.....	203	3	2.5-11.8	7.8	35	16	(1)
Confectionery.....	291	5	1.0-16.7	5.6	50	13	(1)
Flour.....	315	2	5.0-25.0	21.0	25	8	(1)
Baking.....	705	4	5.0- 8.0	6.8	52	7	(1)
Silk goods.....	288	1	6.0	6.0	35	6	(1)
Structural ironwork.....	173	2	8.0- 9.0	8.9	87	52	(1)
Foundry and machine-shop products.....	1,065	9	3.3-10.0	5.9	1,077	38	(1)
Machine tools.....	150	4	5.0- 9.4	7.6	67	11	(1)
Steam fittings and steam and hot-water heating apparatus.....	109	1	5.0	5.0	121	10	(1)
Furniture.....	421	7	5.0-16.0	10.0	320	22	(1)
Paper boxes.....	186	3	10.0-12.5	10.6	22	7	(1)
Printing, book and job.....	378	5	2.0-10.0	7.2	26	10	(1)
Printing, newspapers.....	453	7	2.0- 5.0	3.0	423	21	(1)
Brick, tile, and terra cotta.....	635	1	10.0	10.0	164	100	(1)
Glass.....	138	1	8.0	8.0	81	8	(1)
Car building and repairing, electric-railroad.....	452	1	9.0	9.0	410	100	1
Car building and repairing, steam-railroad.....	557	1	2.9	2.9	24	100	(1)
Electrical machinery, apparatus, and supplies.....	192	2	5.0- 9.1	5.4	106	11	(1)
Radio.....	40	1	0.9	0.9	130	3	(1)
			Decreases				
Steam fittings and steam and hot-water heating apparatus.....	109	1	5.0	5.0	55	30	(1)
Lumber, sawmills.....	659	3	9.0-10.0	10.0	291	45	(1)
Lumber, millwork.....	328	4	2.0-10.0	6.0	88	30	(1)
Furniture.....	421	1	20.0	20.0	36	14	(1)
Boots and shoes.....	314	1	10.0	10.0	250	100	(1)
Fertilizers.....	166	1	9.0	9.0	57	90	1

<sup>1</sup> Less than one-half of 1 per cent.

### Farm Wage and Labor Situation on October 1, 1929

AVERAGE monthly farm wage rates on October 1, 1929, for the country as a whole, both with and without board, showed a slight decrease from the rates for July 1, 1929, but were somewhat higher than on October 1, 1928, according to figures issued by the United States Department of Agriculture. The rate per month on October 1, 1929, was \$35.90 with board and \$50 without board. The daily rates were several cents higher than in July, being \$1.92 with board and \$2.46 without board, but several cents lower than on October 1, 1928. The index of the general level of farm wages on



October 1, 1929, was 1 point higher than on July 1, 1929, and 1 point lower than on October 1, 1928. However, considering separately the rates for the individual geographical divisions of the country, average monthly rates were slightly higher in all sections on October 1, 1929, than on October 1, 1928, except in the South Central States. Average daily wages were lower in all divisions but the North Atlantic States.

Table 1 gives average farm wage rates and index numbers from 1910 to 1928, by years, and for specified months from 1923 to October, 1929, the wage rates being separated into daily and monthly rates with board and without board.

TABLE 1.—AVERAGE FARM WAGE RATES AND INDEX NUMBERS, 1910 TO OCTOBER, 1929

Year	Average yearly farm wage <sup>1</sup>				Index numbers of farm wages (1910-1914 = 100)
	Per month		Per day		
	With board	Without board	With board	Without board	
1910.....	\$19.58	\$23.04	\$1.07	\$1.40	97
1911.....	19.85	23.33	1.07	1.40	97
1912.....	20.46	29.14	1.12	1.44	101
1913.....	21.27	30.21	1.15	1.48	104
1914.....	20.90	29.72	1.11	1.44	101
1915.....	21.08	29.97	1.12	1.45	102
1916.....	23.04	32.58	1.24	1.60	112
1917.....	28.64	40.19	1.56	2.00	140
1918.....	35.12	49.13	2.05	2.61	176
1919.....	40.14	56.77	2.44	3.10	206
1920.....	47.24	65.05	2.84	3.56	239
1921.....	30.25	43.58	1.66	2.17	150
1922.....	29.31	42.09	1.64	2.14	146
1923.....	33.09	46.74	1.91	2.45	166
1924.....	33.34	47.22	1.88	2.44	166
1925.....	33.88	47.80	1.89	2.46	168
1926.....	34.86	48.86	1.91	2.49	171
1927.....	34.58	48.63	1.90	2.46	170
1928.....	34.66	48.65	1.88	2.43	169
1929:					
January.....	27.87	40.50	1.46	1.97	137
April.....	30.90	44.41	1.55	2.09	148
July.....	34.64	48.61	1.84	2.44	169
October.....	34.56	48.42	2.03	2.58	174
1924:					
January.....	31.55	45.53	1.79	2.38	159
April.....	33.57	47.38	1.77	2.34	163
July.....	34.34	48.02	1.87	2.43	168
October.....	34.38	48.46	1.93	2.51	171
1925:					
January.....	31.07	45.04	1.74	2.31	156
April.....	33.86	47.40	1.77	2.33	163
July.....	34.94	48.55	1.89	2.44	170
October.....	34.91	48.99	1.95	2.53	173
1926:					
January.....	31.82	46.26	1.76	2.33	159
April.....	34.38	48.40	1.78	2.35	166
July.....	36.10	49.89	1.91	2.48	174
October.....	36.00	50.10	1.97	2.55	176
1927:					
January.....	32.94	47.07	1.79	2.36	162
April.....	34.53	48.47	1.78	2.37	166
July.....	35.59	49.52	1.89	2.44	172
October.....	35.68	49.77	1.96	2.51	175
1928:					
January.....	32.50	46.75	1.76	2.34	161
April.....	34.46	48.44	1.78	2.34	166
July.....	35.39	49.32	1.84	2.39	170
October.....	35.75	49.60	1.96	2.51	175
1929:					
January.....	33.04	47.24	1.78	2.34	162
April.....	34.68	49.00	1.79	2.34	167
July.....	36.08	50.53	1.89	2.43	173
October.....	35.90	50.00	1.92	2.46	174

<sup>1</sup> Yearly averages are from reports by crop reporters, giving average wages for the year in their localities, except for 1924-1928, when the wage rates per month are a straight average of quarterly rates, April, July, October of the current year, and January of the following year; and the wage rates per day are a weighted average of quarterly rates.

Average daily and monthly farm wage rates, with board and without board, in the different States and geographical divisions, are given in Table 2 for the months of October, 1928 and 1929.

TABLE 2.—AVERAGE WAGES PAID TO HIRED FARM LABOR, BY STATES AND DIVISIONS, OCTOBER, 1928 AND 1929

State and division	Per month				Per day			
	With board		Without board		With board		Without board	
	1928	1929	1928	1929	1928	1929	1928	1929
Maine.....	\$47.00	\$49.00	\$65.00	\$71.00	\$2.60	\$2.80	\$3.30	\$3.45
New Hampshire.....	49.00	49.00	74.00	72.00	2.55	2.60	3.65	3.50
Vermont.....	48.00	49.00	72.00	72.00	2.60	2.60	3.40	3.45
Massachusetts.....	49.00	51.00	80.00	80.00	2.90	2.80	3.75	3.80
Rhode Island.....	54.00	56.00	80.00	85.00	3.00	2.80	3.80	3.85
Connecticut.....	53.00	54.00	81.00	86.00	2.80	3.10	3.75	4.00
New York.....	49.75	50.50	70.75	70.75	3.00	3.05	3.80	3.85
New Jersey.....	47.00	51.00	70.00	76.00	2.85	2.75	3.55	3.65
Pennsylvania.....	39.75	40.25	59.75	60.00	2.55	2.60	3.30	3.30
North Atlantic.....	46.58	47.72	68.71	69.90	2.78	2.83	3.58	3.63
Ohio.....	38.75	38.75	53.75	54.50	2.45	2.50	3.10	3.15
Indiana.....	37.00	37.25	49.00	50.00	2.20	2.30	2.75	2.85
Illinois.....	43.25	43.00	55.00	55.25	2.30	2.40	2.95	2.90
Michigan.....	43.00	44.25	60.00	61.75	2.75	2.75	3.40	3.35
Wisconsin.....	48.75	49.25	65.25	67.50	2.50	2.55	3.10	3.15
Minnesota.....	47.00	46.25	63.75	63.00	2.80	2.60	3.55	3.40
Iowa.....	47.75	48.75	58.50	60.25	2.55	2.55	3.20	3.20
Missouri.....	33.00	34.50	44.00	45.75	1.70	1.75	2.20	2.15
North Dakota.....	54.25	47.75	75.75	63.75	4.15	2.45	5.05	3.75
South Dakota.....	48.25	46.50	66.00	66.75	3.00	2.80	3.80	3.55
Nebraska.....	43.00	44.00	58.00	57.75	2.45	2.50	3.30	3.30
Kansas.....	39.25	39.00	54.25	54.75	2.50	2.50	3.20	3.20
North Central.....	42.73	42.79	56.96	57.41	2.48	2.43	3.14	3.07
Delaware.....	32.00	35.50	46.00	53.50	2.35	2.40	3.05	3.05
Maryland.....	36.00	35.25	51.25	50.75	2.30	2.20	2.90	2.85
Virginia.....	30.00	31.00	42.00	43.00	1.65	1.60	2.15	2.00
West Virginia.....	33.25	33.50	48.00	48.50	1.75	1.65	2.45	2.30
North Carolina.....	27.75	28.75	39.25	39.25	1.50	1.40	1.90	1.80
South Carolina.....	21.00	19.50	28.00	27.50	1.00	.95	1.25	1.20
Georgia.....	19.50	19.50	27.25	27.75	1.05	1.05	1.35	1.35
Florida.....	24.00	23.75	37.00	36.25	1.25	1.15	1.70	1.60
South Atlantic.....	25.43	25.52	35.78	36.02	1.38	1.32	1.78	1.71
Kentucky.....	27.25	27.50	38.00	38.75	1.40	1.40	1.80	1.80
Tennessee.....	24.50	25.00	33.25	34.75	1.20	1.20	1.50	1.50
Alabama.....	21.00	21.00	30.00	27.00	1.15	1.10	1.50	1.40
Mississippi.....	21.75	22.50	31.25	32.25	1.15	1.15	1.55	1.60
Arkansas.....	26.00	24.50	35.75	35.25	1.20	1.30	1.60	1.70
Louisiana.....	25.75	24.50	35.25	37.75	1.25	1.25	1.55	1.55
Oklahoma.....	31.25	30.50	43.25	42.50	1.80	1.70	2.25	2.20
Texas.....	31.25	29.00	42.50	42.00	1.60	1.45	2.00	1.90
South Central.....	26.57	25.86	36.74	36.70	1.37	1.32	1.74	1.72
Montana.....	60.50	57.25	83.25	77.00	3.70	3.05	4.35	3.80
Idaho.....	55.50	58.00	77.75	80.75	3.00	2.90	3.75	3.80
Wyoming.....	53.00	53.00	77.00	75.75	2.65	2.65	3.55	3.45
Colorado.....	40.50	45.50	60.50	66.50	2.35	2.45	3.15	3.00
New Mexico.....	36.25	36.00	49.25	52.00	1.85	1.90	2.30	2.30
Arizona.....	52.00	50.00	72.00	66.50	2.20	1.90	2.70	2.60
Utah.....	53.50	64.75	74.00	82.50	2.40	2.55	3.15	3.25
Nevada.....	62.00	65.00	80.00	91.00	2.65	2.75	3.50	3.75
Washington.....	52.75	54.50	78.00	78.00	2.85	2.80	3.70	3.65
Oregon.....	49.00	54.00	69.75	74.00	2.75	2.70	3.25	3.40
California.....	62.00	64.00	90.00	90.00	2.70	2.60	3.65	3.60
Western.....	54.21	56.54	77.68	78.93	2.66	2.57	3.44	3.39
United States.....	35.75	35.90	49.60	50.00	1.96	1.92	2.51	2.46

The supply of farm labor on October 1, 1929, was reported as 91.8 per cent of normal—the same as on October 1, 1928—and the demand 88.6 per cent of normal as compared with 89.4 per cent on October 1, 1928. Table 3 shows the farm labor supply and demand on October 1 of 1928 and 1929.

TABLE 3.—FARM LABOR SUPPLY AND DEMAND, OCTOBER 1, 1928 AND 1929

Geographical division	Supply—per cent of normal		Demand—per cent of normal		Supply as percent-age of demand	
	1928	1929	1928	1929	1928	1929
United States.....	91.8	91.8	89.4	88.6	102.7	103.6
North Atlantic.....	91.8	89.8	89.7	89.4	102.4	100.5
North Central.....	93.5	93.3	90.8	89.3	102.9	104.5
South Atlantic.....	89.2	89.7	87.8	86.9	101.6	103.1
South Central.....	90.4	91.3	87.9	87.7	102.8	104.1
Western.....	97.2	95.6	93.1	92.4	104.5	103.5

### Wage Rates in Municipal Employment in Boston and Worcester, Mass., July 1, 1928

WAGE rates for municipal employees in 68 Massachusetts cities and towns as of July 1, 1928, are published in Part II of the Annual Report on the Statistics of Labor for the year ending November 30, 1928, issued by the Department of Labor and Industries of that State. Figures for Boston and Worcester from this tabulation are given below:

RATES OF WAGES OF MUNICIPAL EMPLOYEES IN BOSTON AND WORCESTER, JULY, 1, 1928

City and occupation	Rates of wages	City and occupation	Rates of wages
<i>Boston</i>		<i>Boston—Continued</i>	
Mechanics:	<i>Per day</i>	Road workers:	<i>Per day</i>
Blacksmiths.....	\$6.00–\$7.00	Cement finishers.....	\$6.50
Carpenters.....	5.50–6.00	Curb setters.....	5.50–6.00
Electricians.....	6.50–7.00	Flagstone layers.....	5.50–6.00
Horseshoers.....	5.50–6.00	Pavers.....	5.50–6.00
Machinists.....	5.50–7.00	Rammer men.....	5.50–6.00
Masons.....	7.00	Road-roller engineers.....	5.50–6.00
Meter installers.....	5.50–6.00	Stonecutters.....	5.50–6.00
Meter repairers.....	5.50–6.00	Laborers:	
Painters.....	5.50–6.00	Ash collectors.....	5.00
Pipe bracers.....	5.50–6.00	Laborers (of all classes).....	5.00
Pipe calkers.....	5.50–6.00	Sewer cleaners.....	5.00–5.50
Pipe fitters.....	5.50–6.00	Street sweepers.....	5.00
Pipe layers.....	5.50–6.00	Tree climbers.....	5.50–6.00
Plumbers.....	5.50–6.00	Tree men.....	5.50–6.00
Sheet-metal workers.....	5.50–6.00	Engineers and firemen:	
Steam fitters.....	5.50–6.00	Engineers, stationary—	<i>Per week</i>
Teamsters and chauffeurs:		In charge.....	\$45.00–\$58.00
Automobile repairmen.....	5.50–6.00	First class.....	45.00
	<i>Per week</i>	Second class.....	42.00
	\$36.00	Third class.....	40.00
	<i>Per day</i>	Firemen, stationary.....	39.00
Chauffeurs.....	\$5.25–\$6.00	Oilers.....	39.00
	<i>Per week</i>	Ferry employees:	<i>Per day</i>
	\$31.50–\$33.00	Deck hands.....	\$5.25
	<i>Per day</i>	Gatekeepers.....	5.50
Stablemen.....	\$5.00	Quartermasters.....	6.50
Teamsters.....	5.00	Tollmen.....	5.50



## RATES OF WAGES OF MUNICIPAL EMPLOYEES IN BOSTON AND WORCESTER, JULY, 1, 1928—Continued

City and occupation	Rates of wages	City and occupation	Rates of wages
<b>Worcester</b>		<b>Worcester—Continued</b>	
<b>Mechanics:</b>	<i>Per hour</i>	<b>Road workers—Continued.</b>	<i>Per hour</i>
Blacksmiths.....	\$0.86-\$1.05	Pavers.....	\$0.85
Bricklayers.....	.60-.90	Rammermen.....	.71
Carpenters.....	.71-1.00	Road-roller engineers.....	.76-.85
Horseshoers.....	.78-.80	Steam-shovel engineers.....	.80-1.00
Machinists.....	.78-.85	Stonecutters.....	.73-.75
Masons.....	.73	<b>Laborers:</b>	
Meter installers.....	.74-.78	Common laborers.....	.50-.70½
	<i>Per day</i>	Skilled laborers.....	.63-.85
Meter readers.....	\$7.00	Street sweepers.....	.60-.70
	<i>Per hour</i>	Tree climbers.....	.50-.70½
Meter repairers.....	\$0.74	<b>Engineers and firemen:</b>	
Painters.....	.90	Engineers, stationary.....	.76-.90
Pipe bracers.....	.60-.75	Firemen, stationary.....	.69
Pipe calkers.....	.78	<b>Miscellaneous:</b>	
Pipe fitters.....	.74	Caretakers.....	.64½-.76¾
Pipe layers.....	.65-.75	Cleaners, women (bath-house).....	.50
Sign painters.....	.70-.85		<i>Per week</i>
<b>Teamsters and chauffeurs:</b>		Custodians, women.....	\$20.00
Automobile repairmen.....	.60-.95		<i>Per hour</i>
Car washers.....	.67-.69	Gardeners.....	\$0.54½-\$0.58
Chauffeurs.....	.50-.88	Greenhouse workers.....	.65½
Stablemen.....	.64-.69	Greens keepers (golf links).....	.54½
Teamsters.....	.50-.74	Tree surgeons.....	.58½
<b>Road workers:</b>			<i>Per week</i>
Asphalt mixers.....	.64-.75	Tree workers in charge.....	\$45.36
Asphalt rakers and tampers.....	.67-.77		<i>Per hour</i>
Concrete workers.....	.60-.75	Watchmen.....	\$0.54½-\$0.62¾
Curb setters.....	.80		

In general the hours of labor in Boston are 8 per day, Monday to Friday, and 4 on Saturday—44 hours per week. All employees, however, in the engineers and firemen group work 8 hours per day for 6 days—48 hours per week. Employees on a daily basis are paid the full daily wage for work on Saturday morning.

In Worcester the work week is 48 hours with a half-holiday on Saturday, except in the water department, which has an 8-hour day 6 days per week.

### Earnings of Members of International Typographical Union, 1909 to 1929

THE following table, showing the average annual earnings of members of the International Typographical Union for the last 21 years, is based on figures published in the August, 1929, issue of the Typographical Journal.

AVERAGE ANNUAL EARNINGS OF MEMBERS OF INTERNATIONAL TYPOGRAPHICAL UNION, 1909 TO 1929

Year ending May 31—	Average annual earnings	Year ending May 31—	Average annual earnings	Year ending May 31—	Average annual earnings
1909.....	\$897.00	1916.....	\$1,041.18	1923.....	\$1,919.23
1910.....	953.00	1917.....	1,086.43	1924.....	2,093.69
1911.....	974.00	1918.....	1,145.15	1925.....	2,172.03
1912.....	992.00	1919.....	1,204.88	1926.....	2,325.41
1913.....	1,023.00	1920.....	1,615.25	1927.....	2,328.71
1914.....	1,042.00	1921.....	1,909.03	1928.....	2,277.19
1915.....	1,026.51	1922.....	1,795.44	1929.....	2,327.75

## Wages in the French Metal Industries in 1929

A WAGE study made by the employers' association in the metal-working industries and the machine trades of the region of Paris each year shows the average wages paid in the various occupations of the industry in that section of France.<sup>1</sup>

The wages have been converted into United States currency on the basis of the exchange value of the franc in February, 1929.

The following table shows the average hourly wages of metal workers in different industries in 1929. The wages include all bonuses except family allowances.

## AVERAGE HOURLY WAGES IN THE METAL INDUSTRIES IN THE REGION OF PARIS, FRANCE, IN FEBRUARY, 1929, BY OCCUPATION

[Conversions into United States money made on basis of exchange rate of franc in February, 1929=3.91 cents.]

Industry and occupation	Average hourly wages			
	Time workers		Pieceworkers	
	Francs	Cents	Francs	Cents
Machine industries, general:				
Fitters.....	5.33	20.8	5.68	22.2
Fitters, toolmakers.....	5.83	22.8	6.31	24.7
Blacksmiths.....	5.41	21.2	5.90	23.1
Milling-machine operators.....	5.38	21.0	5.87	23.0
Pattern makers.....	6.30	24.6	7.04	27.5
Mortising and planing machine hands.....	5.51	21.5	5.88	23.0
Lathe hands.....	5.42	21.2	5.92	23.1
Automobiles:				
Fitters.....	5.26	20.6	5.75	22.5
Fitters, toolmakers.....	5.68	22.2	5.98	23.4
Coppersmiths.....	5.68	22.2	6.38	24.9
Milling-machine operators.....	5.54	21.7	5.91	23.1
Milling-machine hands, toolmakers.....	5.90	23.1	6.36	24.9
Machine setters.....	6.14	24.0	6.54	25.6
Lathe hands.....	5.45	21.3	6.00	23.5
Lathe and tool hands.....	5.96	23.3	6.43	25.1
Electrical construction:				
Fitters.....	5.00	19.6	5.52	21.6
Fitters, toolmakers.....	5.54	21.7	6.12	23.9
Electrical fitters.....	5.06	19.8	5.52	21.6
Coil winders.....	4.96	19.4	5.36	21.0
Electricians, factory installations.....	4.91	19.2	5.53	21.6
Electricians, outside installations.....	5.18	20.3		
Lathe hands.....	5.26	20.6	5.86	22.9
Lathe and tool hands.....	5.83	22.8	6.64	26.0
Metal construction:				
Structural-iron workers.....	5.42	21.2		
Blacksmiths.....	5.53	21.6		
Locksmiths.....	5.21	20.4	5.65	22.1
Drop forging:				
Blacksmiths.....	5.10	19.9	6.15	24.0
Hammermen.....	6.48	25.3	6.98	27.3
Swagers.....			6.96	27.2
Metal-pipe manufacture:				
Drawbench workers.....	5.01	19.6		
Pipe drawers.....	4.56	17.8	5.50	21.5
Iron and steel foundries:				
Molders, hand.....	5.44	21.3	6.48	25.3
Core makers.....	5.16	20.2	6.09	23.8
All industries:				
Laborers, male.....	3.67	14.3	4.10	16.0
Laborers, female.....	2.83	11.1	3.13	12.2
Skilled laborers, female.....	3.38	13.2	3.68	14.4

<sup>1</sup> France. Ministère du Travail, de l'Hygiène, de l'Assistance et de la Prévoyance Sociales. Bulletin de la statistique générale de la France et du Service d'observation des Prix, Paris, Juillet-Septembre 1929.

## Earnings and Hours of Labor of Metal Workers in Rhineland-Westphalia, Germany, October, 1928

THE Federal Statistical Office of Germany published, in a recent number of *Wirtschaft und Statistik*,<sup>1</sup> the results of an investigation of actual earnings and hours of labor of metal workers in Rhineland-Westphalia.

The data collected cover 136 establishments with 55,606 workers, or about one-fifth of all metal workers (excepting young workers) in Rhineland-Westphalia and over one-half of all metal workers in the 21 localities investigated.

More than half of the workers included were skilled, about one-fourth were semiskilled, 15.7 per cent were helpers, and 7.6 per cent were women. About 60 per cent of the workers were employed on piecework and about 40 per cent on timework.

### ACTUAL EARNINGS OF ADULT METAL WORKERS (MALES OVER 21, FEMALES OVER 18) IN RHINELAND-WESTPHALIA, GERMANY, OCTOBER, 1928

[Conversions into U. S. currency made on basis of mark (100 pfennigs) at par=23.8 cents]

Branch of industry and group of workers	Number of workers	Average hours per week		Average rate per hour fixed by collective agreement	Average earnings per hour		Average actual earnings per week
		Including over-time	Over-time		Including over-time	Excluding over-time	
<i>Total, all branches</i>							
Skilled workers, timework	10, 044	51	2¼	Cents 19. 0	Cents 24. 4	Cents 23. 9	12. 42
Skilled workers, piecework	18, 753	49½	¾	21. 3	27. 5	27. 0	13. 53
Semiskilled workers, timework	4, 233	50½	1½	17. 1	20. 9	20. 3	10. 54
Semiskilled workers, piecework	9, 609	49½	½	19. 9	25. 4	25. 0	12. 62
Helpers, timework	6, 250	50¾	1¾	15. 6	19. 0	18. 5	9. 67
Helpers, piecework	2, 485	49¼	1¼	18. 7	23. 4	22. 9	11. 54
Females, timework	1, 515	44	½	11. 1	12. 6	12. 6	5. 58
Females, piecework	2, 717	45½	½	12. 4	15. 4	15. 4	7. 01
<i>Iron, steel, and metal goods</i>							
Skilled workers, timework	4, 650	50¾	2¼	18. 8	23. 4	23. 1	11. 86
Skilled workers, piecework	5, 240	48¾	¾	21. 5	28. 5	28. 5	13. 77
Semiskilled workers, timework	1, 436	50	1½	17. 0	20. 7	20. 4	10. 33
Semiskilled workers, piecework	2, 793	48¾	1	20. 0	26. 0	25. 7	12. 53
Helpers, timework	1, 892	50¾	1¾	16. 4	20. 1	19. 8	10. 07
Helpers, piecework	919	48¾	¾	19. 4	25. 4	25. 1	12. 26
Females, timework	1, 006	44¾	½	11. 2	12. 7	12. 7	5. 69
Females, piecework	2, 047	45	½	12. 3	15. 3	15. 2	6. 85
<i>Machine construction</i>							
Skilled workers, timework	3, 067	51	2	18. 9	25. 0	24. 3	12. 73
Skilled workers, piecework	8, 810	49¼	½	21. 1	27. 1	26. 6	13. 36
Semiskilled workers, timework	1, 608	51	1¾	17. 1	20. 3	19. 6	10. 34
Semiskilled workers, piecework	3, 549	50¾	¾	19. 5	24. 6	24. 0	12. 38
Helpers, timework	2, 462	50¾	1½	15. 0	18. 1	17. 5	9. 18
Helpers, piecework	586	50¾	1	17. 7	21. 6	20. 9	10. 94
Females, timework	231	48¾	¾	9. 8	12. 1	12. 0	5. 92
Females, piecework	99	47	-----	13. 5	16. 7	16. 7	7. 86
<i>Boiler manufacture</i>							
Skilled workers, timework	208	52¼	3	18. 6	24. 2	23. 4	12. 60
Skilled workers, piecework	650	49	¾	20. 5	25. 7	25. 1	12. 62
Semiskilled workers, timework	100	50½	2	17. 0	19. 7	19. 1	9. 96
Semiskilled workers, piecework	607	50	¾	19. 7	24. 8	24. 1	12. 38
Helpers, timework	323	52	1	14. 9	18. 0	17. 4	9. 35
Helpers, piecework	71	50¾	¾	16. 2	21. 6	21. 0	10. 89

<sup>1</sup> Germany. Statistisches Reichsamt. *Wirtschaft und Statistik*, Sept. 1, 1929, pp. 707-715. For earnings of metal workers in Berlin, see *Labor Review* for August, 1929, pp. 156-158.



## ACTUAL EARNINGS OF ADULT METAL WORKERS (MALES OVER 21, FEMALES OVER 18) IN RHINELAND-WESTPHALIA, GERMANY, OCTOBER, 1928—Con.

[Conversions into U. S. currency made on basis of mark (100 pfennigs) at par=23.8 cents]

Branch of industry and group of workers	Number of workers	Average hours per week		Average rate per hour fixed by collective agreement	Average earnings per hour		Average actual earnings per week
		Including over-time	Over-time		Including over-time	Excluding over-time	
<i>Steel construction</i>							
				<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	
Skilled workers, timework	727	51	1½	18.8	23.5	22.9	\$12.02
Skilled workers, piecework	321	51½	2¼	20.7	25.3	24.4	13.07
Semiskilled workers, timework	534	50½	1¾	16.3	20.8	20.3	10.48
Semiskilled workers, piecework	164	49½	2¼	17.4	22.0	21.3	10.89
Helpers, timework	212	51	2¼	14.9	17.5	17.0	8.92
Helpers, piecework	77	51	2¼	15.7	18.4	17.9	9.38
<i>Construction of vehicles and aircraft</i>							
Skilled workers, timework	358	48¾	1	19.5	28.0	27.5	13.64
Skilled workers, piecework	561	51	1	20.4	27.4	26.7	13.98
Semiskilled workers, timework	75	48¾	1	17.7	23.7	23.0	11.46
Semiskilled workers, piecework	202	50	½	19.8	25.3	24.7	12.64
Helpers, timework	135	52½	¾	16.0	21.4	20.8	11.23
<i>Construction of railway cars</i>							
Skilled workers, timework	460	50½	1¾	19.5	26.3	25.5	13.28
Skilled workers, piecework	1,797	50	¾	22.0	27.0	26.4	13.54
Semiskilled workers, timework	113	49¾	¾	17.4	21.0	20.3	10.33
Semiskilled workers, piecework	558	50	¾	20.0	24.2	23.5	12.10
Helpers, timework	435	50½	½	15.7	18.0	17.4	9.11
Helpers, piecework	81	50¾	½	16.0	20.5	20.1	10.44
Females, piecework	24	51¾	2	12.3	15.9	15.9	8.25
<i>Electrotechnical industry</i>							
Skilled workers, timework	447	54½	6¼	19.9	26.9	25.5	14.06
Skilled workers, piecework	1,014	51¾	2¼	22.3	28.0	27.2	14.45
Semiskilled workers, timework	344	51¾	2¾	18.2	24.2	23.3	12.47
Semiskilled workers, piecework	1,504	49¾	1	20.8	27.9	27.5	13.90
Helpers, timework	682	51¾	4½	16.6	20.9	19.9	10.81
Helpers, piecework	732	49¾	2	19.5	23.5	22.8	11.58
Females, timework	247	36½	1½	11.8	13.0	12.9	4.78
Females, piecework	547	47½	¾	12.8	15.5	15.4	7.37
<i>Fine instruments and optical goods</i>							
Skilled workers, timework	96	50¾	¾	19.0	24.9	24.5	12.54
Skilled workers, piecework	275	49¾	¾	20.9	26.0	25.5	12.92
Semiskilled workers, piecework	213	51	-----	19.7	23.6	23.2	12.00
Helpers, timework	99	52¾	1¾	14.9	16.9	16.4	8.90

# LABOR AGREEMENTS, AWARDS, AND DECISIONS

## Arbitration Awards and Decisions

### Typographical Workers—Butte and Anaconda, Mont.

**T**HE International Arbitration Board of the American Newspaper Publishers' Association and the International Typographical Union (Prof. Paul H. Douglas, chairman) sustained a local wage award in a dispute between the typographical unions of Butte and Anaconda, Mont., and the newspaper publishers of those two cities. The local board had awarded an increase of \$4.50 per week for a period of three years, effective July 1, 1927.

Professor Douglas quoted living-cost statistics, issued by the Federal Government, to uphold the local decision. Extracts from the decision of Professor Douglas follow:

The present increase, as a matter of fact, only brings the money earnings of the night printers to 48 per cent and of the day printers to 52 per cent above 1913. Even this decision does not therefore restore the pre-war purchasing power of the printers in these cities, and in view of the fact that the wage earners in the country as a whole have actually improved their status by from 25 to 30 per cent during this period, I certainly can not regard the increase in remuneration granted by the local chairman as unreasonable.

Nor can I disapprove of decision to make the increase retroactive to July 1, 1927. The memorandum under which the striking printers went back to work in July, 1927, stated that "any decision which may be made by the arbitration board or boards shall not be retroactive back of July 1, 1927." It is therefore clearly implied by this agreement that the award could be made retroactive to July 1, 1927, and the local board was within its power in so ruling. In view of the long delay in the case, the local chairman was justified in declining to make the printers forego the increase for the period while the dispute was in arbitration. The power to make an award retroactive frequently lubricates the course of arbitration and in view of all these considerations, I can not believe that it would be wise to set aside the local award. It is understood, however, that the retroactive pay shall only be given for the actual time worked.

### Street-Railway Employees—Cincinnati, Ohio

ARBITRATORS appointed to consider the agreement covering wages and working conditions of the employees of the Cincinnati Street Railway Co. consisted of George D. Crabbs, appointed by the company; James A. Wilson, appointed by Division 627 of the Amalgamated Association of Street and Electric Railway Employees; and Judge Robert S. Marx as neutral arbitrator. The award includes the following changes in the agreement which covered the period ending June 30, 1929. The new agreement is for a period of three years.

The wages of motormen, conductors, one-man car operators, and motor-coach operators are increased 2 cents an hour for a period of 18 months, with a further increase of 1 cent an hour for the second 18 months of the agreement. One-man car operators and motor-coach operators continue to receive the additional 7 cents an hour

over the wage paid to conductors and motormen. The award fixes wage rates upon the two-man cars at 55 cents per hour for the first 3 months' service; 58 cents for the next 9 months, and 60 cents per hour for more than one year of service.

The working conditions of all employees are improved by a reduction in the number of hours of work each day. The hours to be worked by motormen and conductors, one-man car operators, and motor-coach operators are to be not less than 8 nor more than 9 per day, with payment for overtime, overtime being defined as time worked beyond the regular run or beyond 9 hours. The workday for barn men, curve cleaners, incline gatemen, electric shovel operators, watchmen, and miscellaneous employees is reduced from 10 and  $9\frac{3}{4}$  hours to 9 hours, with an increase in wages, so that the wage per day is the same for the shorter day as for the longer one, for the first 18 months. For the second 18 months the rate will be increased 1 cent an hour.

### Collective Agreements in Germany

A RECENT report of the Ministry of Labor of Germany<sup>1</sup> shows the extent of trade agreements in that country in 1928 and traces their development in recent years. Table 1 gives the number of agreements and the number of establishments and workers covered, by years, from 1924 to 1928:

TABLE 1.—COLLECTIVE AGREEMENTS IN EFFECT FROM JANUARY 1, 1924, TO JANUARY 1, 1928

January 1—	Number of agreements	Number of establishments covered	Number of workers
1924.....	8,790	812,671	13,135,384
1925.....	7,090	785,945	11,904,159
1926.....	7,533	788,755	11,140,521
1927.....	7,490	807,300	10,970,120
1928.....	8,178	912,006	12,267,440

The increase in the number of employees working under trade agreements occurred solely in the wage-earning group, the number of salaried employees under wage agreements having decreased slightly in recent years, as shown in Table 2, which also classifies the employees by sex.

TABLE 2.—NUMBER EMPLOYED UNDER TRADE AGREEMENTS, 1925 TO 1928

January 1—	Salaried employees		Wage earners		Total	
	Male	Female	Male	Female	Male	Female
1925.....	1,319,878	514,017	7,624,792	2,445,472	8,944,670	2,959,489
1926.....	1,169,098	512,639	7,092,541	2,366,243	8,261,639	2,878,882
1927.....	1,153,379	500,957	7,090,113	2,225,671	8,243,492	2,726,628
1928.....	1,146,216	495,976	8,114,428	2,510,820	9,260,644	3,006,796

<sup>1</sup> Germany. Reichsarbeitsministerium. Die Tarifverträge im Deutschen Reiche am 1. Januar 1928. (47. Sonderheft zum Reichsarbeitsblatt.) Berlin, 1929.



The distribution of the agreements according to their territorial effect is shown in Table 3.

TABLE 3.—ESTABLISHMENTS AND WORKERS INCLUDED IN TRADE AGREEMENTS IN EFFECT FOR STATE, DISTRICT, LOCALITY, AND FIRM

In effect for—	Trade agreements		Establishments included		Workers covered		
	Number	Per cent	Number	Per cent	Number	Per cent	Average per agreement
State.....	80	1.0	97,527	10.7	1,686,450	13.7	21,081
District.....	2,970	36.3	682,390	74.8	9,419,348	76.8	3,171
Locality.....	2,239	27.4	125,757	13.8	717,884	5.9	321
Firm.....	2,889	35.3	6,332	.7	443,758	3.6	154
Total.....	8,178	100.0	912,006	100.0	12,267,440	100.0	1,500

The district trade agreements cover about three-fourths of the establishments and workers under trade agreement. The State-wide trade agreements cover about one-tenth, while the agreements between single firms and their employees are rather negligible, covering only 0.7 per cent of the establishments and 3.6 per cent of workers under trade agreements.

The duration of the agreements in effect on January 1, 1928, was as follows:

Duration	Number	Per cent
Up to 1 year.....	3,284	40.1
Over 1 year to 2 years.....	1,036	12.7
Over 2 years to 3 years.....	1,159	14.2
Over 3 years to 4 years.....	1,127	13.8
Over 4 years.....	1,572	19.2

Average weekly money wages provided for in collective agreements above referred to are shown by the following table:

TABLE 4.—AVERAGE WEEKLY WAGES OF SKILLED AND UNSKILLED WORKERS UNDER TRADE AGREEMENTS ON SPECIFIED DATES

[Conversion into U. S. currency made on basis of par value of mark=23.8 cents]

Year and month	Skilled workers		Unskilled workers		Difference between money wages of skilled and unskilled workers.	
	Marks	U. S. currency	Marks	U. S. currency	Marks	U. S. currency
1926:						
Jan. 1.....	45.25	\$10.77	34.20	\$8.14	11.05	\$2.63
Apr. 1.....	45.26	10.77	34.16	8.13	11.10	2.64
July 1.....	45.17	10.75	34.10	8.12	11.07	2.63
Oct. 1.....	45.54	10.84	34.42	8.10	11.12	2.65
1927:						
Jan. 1.....	45.68	10.87	34.53	8.22	11.15	2.65
Apr. 1.....	46.55	11.08	35.54	8.46	11.01	2.62
July 1.....	48.28	11.49	36.70	8.73	11.58	2.76
Oct. 1.....	48.38	11.51	37.08	8.83	11.30	2.69
1928:						
Jan. 1.....	49.20	11.71	37.56	8.94	11.64	2.77
Apr. 1.....	50.19	11.95	38.39	9.14	11.80	2.81
July 1.....	51.62	12.29	39.51	9.40	12.11	2.88
Oct. 1.....	52.10	12.40	40.17	9.56	11.93	2.84

*Provision for vacations with pay.*—The length of paid vacations provided for varies according to trades and age of workers. Usually a minimum and maximum length of leave is stipulated. The leave for salaried employees is somewhat longer than that of manual workers. A minimum leave of 3 to 6 workdays was provided for 81.9 per cent of salaried employees, a somewhat lower minimum for 5.5 per cent, and a somewhat higher minimum for 12.6 per cent. A maximum leave of 12 to 18 workdays was provided in agreements covering 59.7 per cent, a shorter period for 12.6 per cent, and a longer period for 27.7 per cent of the salaried employees. For wage earners the minimum leave of 3 to 6 workdays was fixed for 32.7 per cent, 3 days and less for 66.2 per cent, the maximum of 6 workdays for 39.4 per cent, over 6 up to 12 workdays for 48.2 per cent, and over 12 days for 12.4 per cent.

# UNEMPLOYMENT RELIEF AND STABILIZATION

## Action Toward Unemployment Relief and Stabilization in Massachusetts and Porto Rico

**T**HAT the subject of unemployment relief and stabilization is receiving the attention of the law-making bodies is shown by two resolutions adopted by the 1929 legislative sessions of Massachusetts and of Porto Rico.

The Legislature of Massachusetts in a resolution (ch. 54) approved June 7, 1929, authorized and directed the Massachusetts Industrial Commission "to investigate conditions affecting the textile industry in the Commonwealth with a view of devising ways and means to effect an improvement of such conditions, and also to investigate as to the best methods of alleviating distress caused by extended periods of unemployment in that and other industries, and in connection therewith to consider the question of providing insurance against unemployment." The commission was directed to report the results of its investigation and its recommendations, with drafts of legislation to carry the same into effect, to the next session of the general court to be held in December.

In a joint resolution (No. 16) adopted at the first special session of the 1929 Legislature of Porto Rico, and approved on July 19, 1929, a committee of seven members of the Porto Rican Legislature was appointed "to make a full and complete survey of the causes producing industrial and agricultural uneasiness and restlessness and giving rise to unemployment." The committee was directed to make a complete survey of:

1. The causes of industrial and agricultural unrest;
2. Number of industries operating in the Island, determining their temporary or permanent nature;
3. Products of Porto Rican soil;
4. Living and working conditions of the industrial and field laborers;
5. Raw materials produced, or which can be produced, in Porto Rico;
6. Manufacturing industries that can transform and manufacture such raw material as may be imported;
7. Labor systems, hours of work, and wages, health and safety in fields, factories, shops, and offices;
8. Chief causes of unemployment;
9. Reports, records, data, pamphlets, documents, and books in connection with the problems of Porto Rico published by the United States Department of Commerce, Commission of Industrial Relations, Department of Labor of the United States, conferences at Mohonk Lake, Committee on Insular Affairs of the House, and Committee on Insular Possessions and Territories of the Senate of the United States, and the Brookings Institute as well as of any organization of the Government of Porto Rico.

The investigating committee was also authorized to study the organization and operation of the several bureaus and departments devoted to labor and allied problems with a view of further solving



the subject of unemployment and promoting the welfare and happiness of the people of Porto Rico. A complete yearly report of its whole work is to be submitted to the legislature and to the Governor of Porto Rico.

### Preparations for Stabilizing Employment in Cincinnati

**T**HE city manager of Cincinnati recently created a citizens committee which in turn has recommended the appointment of a permanent committee on stabilizing employment. In the American City of July, 1929, it is stated that recommendations have been made that the investigations of this proposed permanent committee not only include Cincinnati but the whole of Hamilton County, Ohio, and Kenton and Campbell Counties in Kentucky. According to that publication, the work in this connection would be carried on by 10 subcommittees, the respective functions of which are outlined below:

1. The committee on State-city employment exchange in cooperation with the exchange will develop a system for classifying applicants and will work out methods for establishing contacts with factory employment departments and other contacts with a view to the more effective placement of the unemployed.

2. The committee on continuous employment will endeavor to promote the institution of methods of employment stabilization, for example, suggesting in times of industrial depression the employment of a whole personnel on part-time rather than the full-time employment of only a small group of employees. This committee will also undertake, in cooperation with employers and others interested, a method for reporting by percentages the rise and fall of business activities. It is also within the province of this body to suggest investments of capital, which in periods of stress will provide work for the unemployed.

3. The committee on temporary employment will look into the matter of available odd jobs about homes, factories, etc., in order to discover opportunities for placements on such jobs during industrial slumps.

4. The committee on public works will urge the utilization of unemployed men on public works and will consult with cities, villages, and counties on construction programs and the kind of men required for their prosecution. The carrying on of additional public works during unemployment declines will also be encouraged.

5. The committee on cooperation of agencies will make a study of the coordination of public and private agencies which in slack periods handle the residue of the jobless.

6. The committee on budget and finance will outline the financial needs as indicated in the budgets and reported requirements of the various subcommittees and will study means for financing their activities.

7. The committee on State and national cooperation will make an analysis of State and national legislative proposals on employment, in order that expression may be given to the community's viewpoint on such contemplated legislation.

8. The committee to cooperate with the transient bureau, which is shortly to be consolidated with the city public welfare department,

will study the problem of the proper care of transient and homeless workers. Information will be secured on the labor supply, and the committee will try to deter outside labor from migrating to metropolitan Cincinnati when there is no need for such labor.

9. The fact-finding committee will bring together the data secured by the different committees and will engineer research methods which will clearly show labor conditions in Cincinnati.

- 10. The committee on publicity and education will report to the public on the employment situation and on the progress of the investigations and their results. It is felt that the members of this group will become familiar with the various local opportunities for the vocational training of both manual and handicapped persons and will be in a position to formulate educational programs in the further interest of the workers.

In conjunction with these various inquiries under the supervision of the official permanent committee on stabilizing employment, two other groups will make surveys—one to discover the economic possibilities for negroes in Cincinnati and its neighborhood and the other to ascertain the effect of married women in industry and business.

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#### Bonuses Paid by a Rubber Factory to Discharged Workers

**M**ORE than \$100,000 in the form of "wage-termination bonuses" has been paid by the Hartford Rubber Co., to workers discharged because of the removal of its plant to Detroit, Mich., according to Connecticut Industry for October, 1929, published by the Manufacturers Association of Connecticut (Inc.). In addition, the company has placed about 30 foremen in other factories throughout Connecticut and is lending assistance to the unemployment committee which was formed to find jobs for the men thrown out of work.

It is reported that more difficulty has been found in placing the skilled workmen than the unskilled, many of the latter having been hired by contractors. All employers of skilled or unskilled labor have been requested to consult the unemployment committee mentioned above, when in need of help, until the present situation has been relieved.

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#### Conditions of Employment on Public Works in Spain

**U**NDERTAKINGS or contractors in Spain engaged in public works on behalf of the State, Provinces, or municipalities are required to state, when making their estimates, the wages to be paid the workers, specifying the minimum remuneration per legal working-day and the pay for overtime for all classes of workers, which may never be less than the rates fixed by the joint committees in the district concerned, according to a Royal decree (No. 744) published in the March 7, 1929, issue of the *Gaceta de Madrid*.

Before the work begins, the head of an enterprise must submit to the proper authorities the labor contract drawn up between the firm and the workers. The contract, drawn up in triplicate, must be signed by the head of the enterprise or the contractor and by a representative appointed by the workers, one copy of which must be sent to the Ministry of Labor and Social Welfare.

Contractors are required to give each worker a book which shall show his name, the date of the labor contract, the work he is to perform, and his daily wages or remuneration for overtime.

If a joint committee is organized it will study the labor contract with a view to ratification or amendment, if necessary, notifying the Ministry of Labor and Social Welfare thereof.

The decree prohibits the imposition of fines upon workers or the deduction of any sum from their wages unless this has been specified in the labor contract. The fines shall not be retained by the employer but shall go into the fund of the central committee for vocational training to meet the expenses of industrial schools.

All complaints concerning labor contracts shall come under the jurisdiction of the industrial courts unless joint committees are in existence.

The provisions of this decree shall be binding upon enterprises and contractors engaged in public works which are now being carried on.



# TREND OF EMPLOYMENT

## Summary for September, 1929

**E**MPLOYMENT increased 0.8 per cent in September, 1929, as compared with August, and pay-roll totals increased 1.2 per cent, according to reports made to the Bureau of Labor Statistics.

The industrial groups surveyed, the number of establishments reporting in each group, the number of employees covered, and the total pay rolls for one week, for both August and September, together with the per cent of change in September, are shown in the following summary:

SUMMARY OF EMPLOYMENT AND PAY-ROLL TOTALS, SEPTEMBER AND AUGUST, 1929

Industrial group	Estab- lish- ments	Employment		Percent of change	Pay roll in 1 week		Percent of change
		August, 1929	September, 1929		August, 1929	September, 1929	
1. Manufacturing .....	12,634	3,582,943	3,598,084	<sup>1</sup> +0.7	\$98,723,661	\$98,635,964	<sup>1</sup> +0.5
2. Coal mining .....	1,254	277,745	292,169	+5.2	7,000,230	8,113,451	+15.9
Anthracite .....	148	96,966	108,524	+11.9	2,586,586	3,425,603	+32.4
Bituminous .....	1,106	180,779	183,645	+1.6	4,413,644	4,687,848	+6.2
3. Metalliferous mining .....	326	61,880	61,204	-1.1	1,802,836	1,836,837	+1.9
4. Quarrying and nonmet- allic mining .....	673	39,582	39,543	-0.1	1,081,332	1,076,187	-0.5
5. Public utilities .....	9,373	745,186	741,522	-0.5	21,711,284	21,820,818	+0.5
6. Trade .....	7,910	276,168	285,770	+3.5	7,048,586	7,322,522	+3.9
Wholesale .....	1,821	62,292	62,671	+0.6	1,880,124	1,941,391	+3.3
Retail .....	6,089	213,876	223,099	+4.3	5,168,462	5,381,131	+4.1
7. Hotels .....	1,669	145,071	145,406	+0.2	<sup>2</sup> 2,399,660	<sup>2</sup> 2,418,701	+0.8
8. Canning and preserving .....	461	64,970	73,857	+13.7	1,129,873	1,303,826	+15.4
<b>Total .....</b>	<b>34,320</b>	<b>5,193,545</b>	<b>5,237,555</b>	<b>+0.8</b>	<b>140,897,462</b>	<b>142,528,306</b>	<b>+1.2</b>

## RECAPITULATION BY GEOGRAPHIC DIVISIONS

GEOGRAPHIC DIVISION							
New England <sup>3</sup> .....	2,334	479,666	488,075	+1.8	\$12,240,419	\$12,590,031	+2.9
Middle Atlantic <sup>4</sup> .....	5,978	1,424,531	1,445,810	+1.5	40,528,866	41,757,065	+3.0
East North Central <sup>5</sup> .....	8,181	1,643,905	1,650,801	+0.4	49,532,094	48,867,251	-1.3
West North Central <sup>6</sup> .....	3,919	320,274	326,874	+2.1	8,156,132	8,349,363	+2.4
South Atlantic <sup>7</sup> .....	4,167	490,743	493,395	+0.5	10,285,887	10,420,304	+1.3
East South Central <sup>8</sup> .....	2,032	216,377	217,716	+0.6	4,320,265	4,368,627	+1.1
West South Central <sup>9</sup> .....	2,201	193,258	196,637	+1.7	4,473,425	4,668,547	+4.4
Mountain <sup>10</sup> .....	1,243	105,687	105,752	+0.1	2,871,173	3,042,564	+6.0
Pacific <sup>11</sup> .....	4,175	319,104	312,495	-2.1	8,489,201	8,464,554	-0.3
<b>All divisions .....</b>	<b>34,320</b>	<b>5,193,545</b>	<b>5,237,555</b>	<b>+0.8</b>	<b>140,897,462</b>	<b>142,528,306</b>	<b>+1.2</b>

<sup>1</sup> Weighted per cent of change for the combined 54 manufacturing industries repeated from Table 2, p. 124; the remaining per cents of change including total, are unweighted.

<sup>2</sup> Cash payments only; see text, p. 135.

<sup>3</sup> Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont.

<sup>4</sup> New Jersey, New York, Pennsylvania.

<sup>5</sup> Illinois, Indiana, Michigan, Ohio, Wisconsin.

<sup>6</sup> Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota.

<sup>7</sup> Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia.

<sup>8</sup> Alabama, Kentucky, Mississippi, Tennessee.

<sup>9</sup> Arkansas, Louisiana, Oklahoma, Texas.

<sup>10</sup> Arizona, Colorado, Idaho, Montana, New Mexico, Nevada, Utah, Wyoming.

<sup>11</sup> California, Oregon, Washington.

September, as normally, showed increased employment in manufacturing industries, and in coal mining, wholesale and retail trade, and canning and preserving, while "near-by" resort hotels in September showed the effect of Labor Day in increased business. Public utilities, metalliferous mining, quarrying, and nonmetallic mining, each showed a slight falling off in employment.

Eight of the nine geographic divisions in September gained employees and showed correspondingly increased pay-roll totals, except that in the East North Central division while employment was slightly increased pay-roll totals fell off 1.3 per cent, this being the division most affected by any change in conditions in the automobile industry. The Pacific division reported a loss of 2.1 per cent of its employees with a decrease in pay-roll totals of 0.3 per cent only.

For convenient reference the latest data available relating to all employees, excluding executives and officials, on Class I railroads, drawn from Interstate Commerce Commission reports, are shown in the following statement. These reports are for the months of July and August instead of for August and September, consequently the figures can not be combined with those presented in the foregoing table:

EMPLOYMENT AND PAY-ROLL TOTALS, CLASS I RAILROADS

Industry	Employment		Per cent of change	Amount of pay roll in entire month		Per cent of change
	July 15, 1929	Aug. 15, 1929		July, 1929	August, 1929	
Class I railroads.....	1,727,857	1,742,584	+0.9	\$246,903,206	\$251,946,549	+2.0

The total number of employees included in this summary is approximately 7,000,000, whose combined earnings in one week amounted to more than \$199,000,000.

### 1. Employment in Selected Manufacturing Industries in September, 1929

#### Comparison of Employment and Pay-Roll Totals in Manufacturing Industries, August and September, 1929

**E**MPLOYMENT in manufacturing industries *increased* 0.7 per cent in September as compared with August, while pay-roll totals *increased* 0.5 per cent. Manufacturing employment in September stood at the highest level yet reached in any month of 1929, or in any month since March, 1927. The natural increase in September pay-roll totals in manufacturing industries was, as usual, somewhat lessened by Labor Day closing, which affected all reports covering the first half of the month.

The Bureau of Labor Statistics' weighted index of employment in manufacturing industries for September, 1929, is 99.3, as compared with 98.6 for August, 1929, and 95.0 for September, 1928; the weighted index of pay-roll totals for September, 1929, is 102.6, as compared with 102.1 in August, 1929, and 95.4 in September, 1928. The monthly average, 1926, equals 100.

The food group of industries as a whole showed substantial increase in September, with the confectionery industry outstanding; the textile group showed a highly satisfactory increase, with cotton goods, knit goods, and women's clothing especially marked; the iron and steel group showed a small increase, every separate industry showing an increase except the iron and steel industry itself, which fell off 1.3 per cent in employment; every separate industry in the leather, paper, chemical, and tobacco groups reported increased employment. The lumber, stone-clay-glass, metal, other than iron and steel, vehicle, and miscellaneous groups, each, as a whole, registered slightly decreased employment.

The automobile industry reported 7,000 fewer employees, a decrease of 1.6 per cent, with a decrease of 6.1 per cent in employees' earnings, and the automobile-tire and the agricultural-implement industries also reported marked decreases in both items.

Employment in rayon plants fell off slightly, while radio plants reported a curtailment of 4.2 per cent.

This report represents 12,603 establishments (exclusive of rayon and radio establishments; see note 3, p. 124) in 54 of the chief manufacturing industries of the United States. These establishments had in September 3,546,658 employees whose earnings in one week were \$97,535,056.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL MANUFACTURING ESTABLISHMENTS IN AUGUST AND SEPTEMBER, 1929, BY INDUSTRIES

Industry	Estab-lish-ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		August, 1929	September, 1929		August, 1929	September, 1929	
<b>Food and kindred products</b> .....	<b>1, 857</b>	<b>224, 501</b>	<b>229, 704</b>	(1)	<b>\$5, 846, 845</b>	<b>\$6, 003, 533</b>	(1)
Slaughtering and meat pack- ing.....	203	80, 609	81, 172	+0. 7	2, 088, 002	2, 153, 594	+3. 1
Confectionery.....	291	29, 745	34, 632	+16. 4	556, 225	640, 014	+15. 1
Ice cream.....	327	14, 308	13, 573	-5. 1	461, 922	444, 412	-3. 8
Flour.....	315	16, 524	16, 763	+1. 4	455, 158	473, 636	+4. 1
Baking.....	705	71, 717	73, 166	+2. 0	1, 931, 047	1, 980, 221	+2. 5
Sugar refining, cane.....	16	11, 598	10, 458	-9. 8	354, 491	311, 656	-12. 1
<b>Textiles and their products</b> .....	<b>2, 140</b>	<b>606, 476</b>	<b>618, 407</b>	(1)	<b>11, 815, 533</b>	<b>12, 081, 357</b>	(1)
Cotton goods.....	484	208, 693	214, 123	+2. 6	3, 194, 089	3, 297, 847	+3. 2
Hosiery and knit goods.....	325	94, 536	97, 830	+3. 5	1, 805, 058	1, 898, 483	+5. 2
Silk goods.....	288	66, 492	66, 372	-0. 2	1, 409, 675	1, 399, 222	-0. 7
Woolen and worsted goods.....	182	62, 822	63, 255	+0. 7	1, 397, 816	1, 413, 983	+1. 2
Carpets and rugs.....	28	18, 608	18, 396	-1. 1	473, 617	477, 156	+0. 7
Dyeing and finishing textiles.....	115	33, 320	34, 297	+2. 9	818, 752	841, 143	+2. 7
Clothing, men's.....	312	66, 166	65, 870	-0. 4	1, 555, 416	1, 504, 461	-3. 3
Shirts and collars.....	121	21, 432	22, 094	+3. 1	343, 005	350, 059	+2. 1
Clothing, women's.....	205	22, 664	23, 954	+5. 7	553, 341	616, 369	+11. 4
Millinery and lace goods.....	80	11, 743	12, 216	+4. 0	264, 764	282, 634	+6. 7
<b>Iron and steel and their prod- ucts</b> .....	<b>1, 919</b>	<b>739, 997</b>	<b>741, 391</b>	(1)	<b>22, 970, 864</b>	<b>22, 918, 125</b>	(1)
Iron and steel.....	201	284, 312	280, 559	-1. 3	9, 238, 191	9, 085, 329	-1. 7
Cast-iron pipe.....	38	11, 926	11, 954	+0. 2	286, 192	285, 880	-0. 1
Structural ironwork.....	173	29, 795	30, 068	+0. 9	915, 934	930, 114	+1. 5
Foundry and machine-shop products.....	1, 065	289, 499	290, 719	+0. 4	8, 928, 959	8, 860, 475	-0. 8
Hardware.....	69	30, 965	31, 951	+3. 2	799, 532	820, 800	+2. 7
Machine tools.....	150	41, 418	42, 577	+2. 8	1, 325, 898	1, 387, 294	+4. 6
Steam fittings and steam and hot-water heating appara- tus.....	109	32, 311	32, 581	+0. 8	936, 453	900, 910	+2. 6
Stoves.....	114	19, 771	20, 982	+6. 1	539, 705	587, 323	+8. 8

See footnotes at end of table, p. 124



TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL MANUFACTURING ESTABLISHMENTS IN AUGUST AND SEPTEMBER, 1929, BY INDUSTRIES—Continued

Industry	Estab- lish- ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		August, 1929	Septem- ber, 1929		August, 1929	September, 1929	
<b>Lumber and its products</b> .....	<b>1,408</b>	<b>254,199</b>	<b>252,745</b>	( <sup>1</sup> )	<b>\$5,605,199</b>	<b>\$5,721,227</b>	( <sup>1</sup> )
Lumber, sawmills.....	659	149,543	146,547	-2.0	3,053,651	3,100,019	+1.5
Lumber, millwork.....	328	36,353	35,195	-3.2	866,500	843,292	-2.7
Furniture.....	421	68,303	71,003	+4.0	1,685,048	1,777,916	+5.5
<b>Leather and its products</b> .....	<b>443</b>	<b>141,911</b>	<b>143,899</b>	( <sup>1</sup> )	<b>3,455,181</b>	<b>3,432,457</b>	( <sup>1</sup> )
Leather.....	129	27,281	27,603	+1.2	711,649	711,358	( <sup>1</sup> )
Boots and shoes.....	314	114,630	116,296	+1.5	2,743,532	2,721,099	-0.8
<b>Paper and printing</b> .....	<b>1,225</b>	<b>211,114</b>	<b>214,602</b>	( <sup>1</sup> )	<b>7,041,873</b>	<b>7,255,308</b>	( <sup>1</sup> )
Paper and pulp.....	208	57,877	57,964	+0.2	1,582,976	1,580,139	-0.2
Paper boxes.....	186	19,616	20,422	+4.1	447,957	480,626	+7.3
Printing, book and job.....	378	48,145	49,290	+2.4	1,606,040	1,680,254	+4.6
Printing, newspapers.....	453	85,476	86,926	+1.7	3,404,900	3,514,289	+3.2
<b>Chemicals and allied products</b> .....	<b>387</b>	<b>105,588</b>	<b>109,145</b>	( <sup>1</sup> )	<b>3,178,695</b>	<b>3,286,676</b>	( <sup>1</sup> )
Chemicals.....	141	34,603	35,079	+1.4	968,629	976,218	+0.8
Fertilizers.....	166	8,629	10,620	+23.1	173,974	205,272	+18.0
Petroleum refining.....	80	62,356	63,446	+1.7	2,036,092	2,105,186	+3.4
<b>Stone, clay, and glass products</b> .....	<b>1,001</b>	<b>131,603</b>	<b>131,509</b>	( <sup>1</sup> )	<b>3,395,474</b>	<b>3,409,923</b>	( <sup>1</sup> )
Cement.....	107	24,330	23,872	-1.9	722,404	718,964	-0.5
Brick, tile, and terra cotta.....	635	43,597	42,940	-1.5	1,060,843	1,033,509	-2.6
Pottery.....	121	19,827	20,011	+0.9	477,269	490,524	+2.8
Glass.....	138	43,849	44,686	+1.9	1,134,958	1,166,926	+2.8
<b>Metal products, other than iron and steel</b> .....	<b>219</b>	<b>55,427</b>	<b>54,895</b>	( <sup>1</sup> )	<b>1,490,263</b>	<b>1,467,100</b>	( <sup>1</sup> )
Stamped and enameled ware.....	67	17,991	17,852	-0.8	433,868	416,849	-3.9
Brass, bronze, and copper products.....	152	37,436	37,043	-1.0	1,056,395	1,050,251	-0.6
<b>Tobacco products</b> .....	<b>244</b>	<b>63,908</b>	<b>64,622</b>	( <sup>1</sup> )	<b>1,075,585</b>	<b>1,106,007</b>	( <sup>1</sup> )
Chewing and smoking to- bacco and snuff.....	27	8,118	8,587	+5.8	*136,539	135,271	-0.9
Cigars and cigarettes.....	217	55,790	56,035	+0.4	939,046	970,736	+3.4
<b>Vehicles for land transporta- tion</b> .....	<b>1,277</b>	<b>617,305</b>	<b>609,941</b>	( <sup>1</sup> )	<b>20,727,842</b>	<b>19,744,775</b>	( <sup>1</sup> )
Automobiles.....	217	442,989	435,914	-1.6	15,280,019	14,354,863	-6.1
Carriages and wagons.....	51	1,667	1,611	-3.4	36,388	35,513	-2.4
Car building and repairing, electric-railroad.....	452	29,929	29,470	-1.5	923,440	916,774	-0.7
Car building and repairing, steam-railroad.....	557	142,720	142,946	+0.2	4,487,995	4,437,625	-1.1
<b>Miscellaneous industries</b> .....	<b>534</b>	<b>430,914</b>	<b>427,164</b>	( <sup>1</sup> )	<b>12,120,307</b>	<b>12,209,476</b>	( <sup>1</sup> )
Agricultural implements.....	82	29,528	27,751	-6.0	872,633	788,357	-9.7
Electrical machinery, appa- ratus, and supplies.....	192	227,359	227,988	+0.3	6,674,483	6,906,836	+3.5
Pianos and organs.....	70	6,477	7,320	+13.0	184,249	220,907	+19.9
Rubber boots and shoes.....	12	17,927	18,486	+3.1	435,470	463,050	+6.3
Automobile tires.....	42	59,755	57,036	-4.6	1,733,530	1,597,403	-7.9
Shipbuilding.....	85	36,910	37,157	+0.7	1,069,822	1,132,010	+5.8
Rayon <sup>2</sup> .....	11	18,274	18,192	-0.4	387,214	381,061	-1.6
Radio <sup>3</sup> .....	40	34,684	33,234	-4.2	762,906	719,847	-5.6
<b>All industries</b> .....	<b>12,654</b>	<b>3,582,943</b>	<b>3,598,084</b>	( <sup>1</sup> )	<b>98,723,661</b>	<b>98,635,964</b>	( <sup>1</sup> )

See footnotes at end of table, p. 124.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL MANUFACTURING ESTABLISHMENTS IN AUGUST AND SEPTEMBER, 1929, BY INDUSTRIES—Continued

## RECAPITULATION BY GEOGRAPHIC DIVISIONS

Industry	Estab- lish- ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		August, 1929	Septem- ber, 1929		August, 1929	September, 1929	
GEOGRAPHIC DIVISION <sup>1</sup>							
New England.....	1, 476	402, 450	410, 064	+1.9	\$10, 094, 923	\$10, 397, 963	+3.0
Middle Atlantic.....	2, 883	948, 484	954, 365	+0.6	27, 440, 941	27, 696, 599	+0.9
East North Central.....	3, 187	1, 262, 607	1, 261, 201	-0.1	39, 118, 833	38, 294, 772	-2.1
West North Central.....	1, 118	183, 787	184, 551	+0.4	4, 773, 159	4, 776, 075	+0.1
South Atlantic.....	1, 628	352, 375	353, 382	+0.3	6, 960, 683	6, 986, 705	+0.4
East South Central.....	624	135, 061	136, 029	+0.7	2, 614, 160	2, 627, 908	+0.5
West South Central.....	725	118, 685	121, 775	+2.6	2, 779, 731	2, 915, 877	+4.9
Mountain.....	223	35, 219	34, 265	-2.7	938, 424	945, 684	+0.8
Pacific.....	790	144, 275	142, 452	-1.3	4, 002, 807	3, 994, 381	-0.2
All divisions .....	12, 654	3, 582, 943	3, 598, 084	(1)	98, 723, 661	98, 635, 964	(1)

<sup>1</sup> The per cent of change has not been computed for the reason that the figures in the preceding columns are unweighted and refer only to the establishments reporting; for the weighted per cent of change, wherein proper allowance is made for the relative importance of the several industries, so that the figures may represent all establishments of the country in the industries here represented, see Table 2.

<sup>2</sup> Less than one-tenth of 1 per cent.

<sup>3</sup> The rayon industry was surveyed for the first time for the January-February comparison, and the radio industry for the March-April comparison, and, since the data for computing relative numbers are not yet available, these industries are not included in the bureau's indexes of employment and pay-roll totals. The total figures for all manufacturing industries given in the text, p. 122, do not include rayon or radio.

<sup>4</sup> See footnotes 3 to 11, p. 120.

TABLE 2.—PER CENT OF CHANGE, AUGUST TO SEPTEMBER, 1929—12 GROUPS AND TOTAL OF ALL MANUFACTURING INDUSTRIES

[Computed from the index numbers of each group, which are obtained by weighting the index numbers of the several industries of the group, by the number of employees, or wages paid, in the industries]

Group	Per cent of change, August to September, 1929		Group	Per cent of change, August to September, 1929	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Food and kindred products.....	+2.7	+3.0	Metal products, other than iron and steel.....	-0.9	-1.5
Textiles and their products.....	+2.1	+2.9	Tobacco products.....	+1.1	+3.0
Iron and steel and their products.....	+0.3	-0.3	Vehicles for land transportation.....	-0.9	-3.9
Lumber and its products.....	-0.7	+1.9	Miscellaneous industries.....	-0.4	+1.5
Leather and its products.....	+1.3	-0.6			
Paper and printing.....	+1.8	+3.2			
Chemicals and allied products.....	+3.6	+3.1			
Stone, clay, and glass products.....	-0.1	+0.2			
			<b>All industries.....</b>	<b>+0.7</b>	<b>+0.5</b>

## Comparison of Employment and Pay-Roll Totals in Manufacturing Industries, in September, 1929, and September, 1928

THE LEVEL of employment in manufacturing industries in September, 1929, was 4.5 per cent *higher* than in September, 1928, and employees' earnings were 7.5 per cent greater, this being the twelfth successive month showing a higher level of employment than in the same month of the preceding year and the thirteenth successive month of higher pay-roll totals.

Nine of the twelve groups of industries and 36 of the 54 industries had more employees at the end of this 12-month period than at the beginning, the outstanding increases having been in shipbuilding, in electrical machinery, apparatus, and supplies, and in machine tools; and, in a smaller degree, in petroleum refining and foundry and ma-

chine-shop products. The vehicle, stone-clay-glass, and tobacco groups and each of their separate industries, except steam-railroad car shops, showed decreased employment.

Eight of the nine geographic divisions made gains in employment over this year's interval, the West South Central and Middle Atlantic divisions having made the greatest gains, while the Pacific division showed a loss of 0.7 per cent.

TABLE 3.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, SEPTEMBER, 1929, WITH SEPTEMBER, 1928

[The per cents of change for each of the 12 groups of industries and for the total of all industries are weighted in the same manner as are the per cents of change in Table 2]

Industry	Per cent of change September, 1929, compared with Septem- ber, 1928		Industry	Per cent of change September, 1929, compared with Septem- ber, 1928	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
<b>Food and kindred products</b>	+2.1	+4.1	<b>Chemicals and allied prod- ucts</b>	+7.3	+8.9
Slaughtering and meat- packing	+4.1	+5.5	Chemicals	+3.5	+4.7
Confectionery	+0.8	+3.9	Fertilizers	-3.8	-8.3
Ice cream	+1.8	+2.3	Petroleum refining	+17.2	+18.3
Flour	+3.6	+8.5	<b>Stone, clay, and glass prod- ucts</b>	-3.1	-2.4
Baking	+1.0	+2.4	Cement	-7.7	-5.1
Sugar refining, cane	-4.2	-4.5	Brick, tile, and terra cotta	-2.1	-5.2
<b>Textiles and their products</b>	+3.7	+4.9	Pottery	-2.7	+0.8
Cotton goods	+4.0	+5.6	Glass	-0.2	+4.1
Hosiery and knit goods	+8.8	+13.0	<b>Metal products, other than iron and steel</b>	+2.1	+2.4
Silk goods	+3.3	+1.4	Stamped and enameled ware	+0.8	+0.7
Woolen and worsted goods	+6.8	+10.0	Brass, bronze, and copper products	+3.1	+3.8
Carpets and rugs	+7.5	+6.3	<b>Tobacco products</b>	-3.0	+0.4
Dyeing and finishing tex- tiles	+4.3	+2.8	Chewing and smoking to- bacco and snuff	-3.6	-7.3
Clothing, men's	+2.4	+1.3	Cigars and cigarettes	-3.1	+1.3
Shirts and collars	+4.7	+6.6	<b>Vehicles for land transpor- tation</b>	-1.6	+3.4
Clothing, women's	-1.4	+2.8	Automobiles	-6.9	-6.8
Millinery and lace goods	+0.6	-4.2	Carriages and wagons	-4.5	-3.7
<b>Iron and steel and their products</b>	+8.0	+12.2	Car building and repairing, electric-railroad	-1.4	+2.2
Iron and steel	+5.6	+11.8	Car building and repairing, steam-railroad	+3.7	+13.7
Cast-iron pipe	+0.9	+13.3	<b>Miscellaneous industries</b>	+25.1	+25.4
Structural ironwork	+8.6	+11.2	Agricultural implements	+5.5	+3.0
Foundry and machine- shop products	+12.2	+15.4	Electrical machinery, appa- ratus, and supplies	+29.9	+33.1
Hardware	+2.2	+6.0	Pianos and organs	-14.6	-16.6
Machine tools	+26.3	+26.9	Rubber boots and shoes	+3.9	+8.0
Steam fittings and steam and hot-water heating apparatus	-7.0	-5.1	Automobile tires	-6.8	-19.9
Stoves	+5.3	+4.6	Shipbuilding	+34.9	+40.2
<b>Lumber and its products</b>	+1.4	+3.5	<b>All industries</b>	+4.5	+7.5
Lumber, sawmills	-0.4	+1.4			
Lumber, millwork	-3.6	-1.3			
Furniture	+8.5	+9.7			
<b>Leather and its products</b>	+3.5	+5.2			
Leather	(1)	+5.2			
Boots and shoes	+4.3	+4.7			
<b>Paper and printing</b>	+4.4	+6.7			
Paper and pulp	+1.6	+4.9			
Paper boxes	+4.8	+7.1			
Printing, book and job	+8.1	+6.7			
Printing, newspapers	+4.3	+7.3			

#### RECAPITULATION BY GEOGRAPHIC DIVISIONS

GEOGRAPHIC DIVISION <sup>1</sup>			GEOGRAPHIC DIVISION—contd.		
New England	+5.1	+6.9	West South Central	+8.4	+15.2
Middle Atlantic	+7.9	+10.9	Mountain	+2.7	+5.0
East North Central	+3.0	+3.1	Pacific	-0.7	+0.9
West North Central	+4.9	+7.7	<b>All divisions</b>	+4.5	+7.5
South Atlantic	+2.0	+5.2			
East South Central	+3.5	+7.3			

<sup>1</sup> No change.

<sup>2</sup> See footnotes 3 to 11, p. 120.



## Per Capita Earnings in Manufacturing Industries in September, 1929

PER CAPITA EARNINGS of employees in the combined 54 manufacturing industries in September, 1929, were 0.2 per cent lower than in August, 1929, and 2.9 per cent higher than in September, 1928.

TABLE 4.—COMPARISON OF PER CAPITA EARNINGS IN MANUFACTURING INDUSTRIES, SEPTEMBER, 1929, WITH AUGUST, 1929, AND SEPTEMBER, 1928

Industry	Per cent of change, September, 1929, compared with—		Industry	Per cent of change, September, 1929, compared with—	
	August, 1929	September, 1928		August, 1929	September, 1928
Pianos and organs.....	+6.1	-2.5	Brass, bronze, and copper products.....	+0.5	+1.1
Clothing, women's.....	+5.4	+4.3	Lumber, millwork.....	+0.5	+2.2
Shipbuilding.....	+5.1	+3.7	Woolen and worsted goods.....	+0.4	+2.4
Lumber, sawmills.....	+3.6	+2.1	Dyeing and finishing textiles.....	-0.2	-1.7
Electrical machinery, apparatus, and supplies.....	+3.2	+2.6	Cast-iron pipe.....	-0.3	+12.4
Rubber boots.....	+3.1	+3.9	Iron and steel.....	-0.3	+6.1
Paper boxes.....	+3.0	+2.1	Paper and pulp.....	-0.3	+3.4
Cigars and cigarettes.....	+2.9	+4.6	Hardware.....	-0.5	+3.8
Millinery and lace goods.....	+2.6	-4.8	Chemicals.....	-0.6	+1.3
Flour.....	+2.5	+4.6	Silk goods.....	-0.6	-1.5
Stoves.....	+2.5	-0.6	Shirts and collars.....	-1.0	+1.9
Slaughtering and meat packing.....	+2.4	+1.5	Brick, tile, and terra cotta.....	-1.1	-3.1
Printing, book and job.....	+2.2	-0.9	Confectionery.....	-1.2	+3.1
Carpets and rugs.....	+1.9	-0.9	Foundry and machine-shop products.....	-1.2	+2.8
Machine tools.....	+1.8	+0.4	Leather.....	-1.2	+4.9
Pottery.....	+1.8	+3.3	Car building and repairing, steam-railroad.....	-1.3	+9.4
Steam fittings and steam and hot-water heating apparatus.....	+1.8	+1.8	Boots and shoes.....	-2.2	+0.2
Hosiery and knit goods.....	+1.7	+3.9	Sugar refining, cane.....	-2.5	-0.4
Petroleum refining.....	+1.6	+1.2	Clothing, men's.....	-2.8	-1.1
Furniture.....	+1.5	+0.8	Stamped and enameled ware.....	-3.2	-0.3
Printing, newspapers.....	+1.5	+3.0	Automobile tires.....	-3.4	-14.1
Cement.....	+1.4	+2.8	Agricultural implements.....	-3.9	-2.6
Ice cream.....	+1.4	+0.7	Fertilizers.....	-4.1	-4.0
Carriages and wagons.....	+1.0	+1.3	Automobiles.....	-4.5	+0.2
Glass.....	+0.9	+3.9	Chewing and smoking tobacco and snuff.....	-6.4	-3.9
Car building and repairing, electric-railroad.....	+0.8	+3.4			
Cotton goods.....	+0.6	+1.4			
Structural ironwork.....	+0.6	+1.1			
Baking.....	+0.5	+1.4	All industries.....	-0.2	+2.9

[NOTE.—For "Wage changes in manufacturing industries," see p. 103.]

## Indexes of Employment and Pay-Roll Totals in Manufacturing Industries

INDEX NUMBERS for September, 1928; and for July, August, and September, 1929, showing relatively the variation in number of persons employed and in pay-roll totals in each of the 54 manufacturing industries surveyed by the Bureau of Labor Statistics, together with general indexes for the combined 12 groups of industries, appear in Table 5.

## TREND OF EMPLOYMENT

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TABLE 5.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, SEPTEMBER, 1928, AND JULY, AUGUST, AND SEPTEMBER, 1929

[Monthly average, 1926=100]

Industry	Employment				Pay-roll totals			
	1928	1929			1928	1929		
	Sep-tember	July	August	Sep-tember	Sep-tember	July	August	Sep-tember
<b>General index</b> .....	<b>95.0</b>	<b>98.2</b>	<b>98.6</b>	<b>99.3</b>	<b>95.4</b>	<b>98.2</b>	<b>102.1</b>	<b>102.6</b>
<b>Food and kindred products</b> .....	<b>100.0</b>	<b>99.5</b>	<b>99.4</b>	<b>102.1</b>	<b>101.2</b>	<b>102.8</b>	<b>102.2</b>	<b>105.3</b>
Slaughtering and meat packing.....	96.6	100.9	99.9	100.6	98.8	105.2	101.1	104.2
Confectionery.....	99.0	81.2	85.7	99.8	98.2	80.1	88.6	102.0
Ice cream.....	100.7	110.4	108.0	102.5	101.0	112.0	107.4	103.3
Flour.....	102.7	103.0	104.9	106.4	106.0	104.9	110.5	115.0
Baking.....	103.4	103.7	102.3	104.4	104.0	105.3	103.9	106.5
Sugar refining, cane.....	93.4	96.4	99.2	89.5	96.4	97.8	104.8	92.1
<b>Textiles and their products</b> .....	<b>93.6</b>	<b>94.3</b>	<b>95.1</b>	<b>97.1</b>	<b>93.2</b>	<b>91.1</b>	<b>95.0</b>	<b>97.8</b>
Cotton goods.....	90.4	93.5	91.6	94.0	86.4	90.9	88.4	91.2
Hosiery and knit goods.....	92.5	96.5	97.2	100.6	94.1	97.0	101.0	106.3
Silk goods.....	95.0	97.8	98.3	98.1	99.2	98.8	101.3	100.6
Woolen and worsted goods.....	91.2	93.9	96.8	97.4	89.2	93.0	96.9	98.1
Carpets and rugs.....	96.6	102.5	105.0	103.8	93.3	93.0	98.5	99.2
Dyeing and finishing textiles.....	96.6	99.4	98.0	100.8	97.3	96.1	97.4	100.0
Clothing, men's.....	93.1	93.6	95.7	95.3	90.8	90.3	95.1	92.0
Shirts and collars.....	89.7	89.0	91.1	93.9	85.8	88.4	89.6	91.5
Clothing, women's.....	104.3	93.7	97.2	102.8	105.7	81.5	97.6	108.7
Millinery and lace goods.....	93.4	84.0	90.4	94.0	97.3	76.1	87.4	93.2
<b>Iron and steel and their products</b> .....	<b>93.2</b>	<b>101.1</b>	<b>100.4</b>	<b>100.7</b>	<b>92.9</b>	<b>101.9</b>	<b>104.5</b>	<b>104.2</b>
Iron and steel.....	91.2	96.6	97.5	96.3	91.0	97.6	103.4	101.7
Cast-iron pipe.....	81.1	80.4	81.7	81.8	73.5	81.8	83.3	83.3
Structural ironwork.....	99.2	104.3	106.8	107.7	100.8	104.3	110.5	112.1
Foundry and machine-shop products.....	94.2	108.4	105.3	105.7	93.7	109.7	109.0	108.1
Hardware.....	90.2	91.6	89.4	92.2	88.1	89.6	90.9	93.4
Machine tools.....	106.8	133.2	131.2	134.9	113.4	140.4	137.6	143.9
Steam fittings and steam and hot-water heating apparatus.....	83.0	72.8	76.6	77.2	82.4	70.8	76.2	78.2
Stoves.....	92.2	85.7	91.5	97.1	89.3	80.3	85.8	93.4
<b>Lumber and its products</b> .....	<b>90.1</b>	<b>90.3</b>	<b>92.0</b>	<b>91.4</b>	<b>91.7</b>	<b>90.3</b>	<b>93.1</b>	<b>94.9</b>
Lumber, sawmills.....	89.4	89.5	90.8	89.0	91.3	91.7	91.2	92.6
Lumber, millwork.....	87.2	87.2	86.9	84.1	86.9	85.7	88.2	85.8
Furniture.....	94.1	94.3	98.2	102.1	96.3	90.6	100.1	105.6
<b>Leather and its products</b> .....	<b>95.1</b>	<b>93.6</b>	<b>97.1</b>	<b>98.4</b>	<b>95.7</b>	<b>94.4</b>	<b>101.3</b>	<b>100.7</b>
Leather.....	95.3	93.0	94.2	95.3	92.8	93.6	97.6	97.6
Boots and shoes.....	95.1	93.8	97.8	99.2	97.0	94.6	102.4	101.6
<b>Paper and printing</b> .....	<b>98.6</b>	<b>100.6</b>	<b>101.1</b>	<b>102.9</b>	<b>100.9</b>	<b>103.1</b>	<b>104.4</b>	<b>107.7</b>
Paper and pulp.....	94.7	95.4	96.0	96.2	93.9	95.7	98.7	98.5
Paper boxes.....	94.5	94.2	95.1	99.0	100.8	100.0	100.7	108.0
Printing, book and job.....	97.7	102.8	103.1	105.6	101.5	102.6	103.6	108.3
Printing, newspapers.....	104.4	106.9	107.1	108.9	106.2	109.8	110.4	113.9
<b>Chemicals and allied products</b> .....	<b>94.7</b>	<b>95.8</b>	<b>98.1</b>	<b>101.6</b>	<b>96.6</b>	<b>100.4</b>	<b>102.0</b>	<b>105.2</b>
Chemicals.....	100.1	100.4	102.2	103.6	101.2	103.4	105.2	106.0
Fertilizers.....	94.5	67.4	73.8	90.9	100.6	76.7	78.2	92.3
Petroleum refining.....	87.6	99.4	101.0	102.7	90.1	101.6	103.1	106.6
<b>Stone, clay, and glass products</b> .....	<b>93.4</b>	<b>88.1</b>	<b>90.6</b>	<b>90.5</b>	<b>91.8</b>	<b>83.5</b>	<b>89.4</b>	<b>89.6</b>
Cement.....	91.2	86.0	85.8	84.2	92.0	85.0	87.8	87.3
Brick, tile, and terra cotta.....	89.2	88.6	88.6	87.3	86.9	82.9	84.6	82.4
Pottery.....	95.3	87.1	91.9	92.7	90.4	77.4	88.6	91.1
Glass.....	97.6	88.9	95.6	97.4	96.6	86.8	97.9	100.6
<b>Metal products, other than iron and steel</b> .....	<b>94.2</b>	<b>97.4</b>	<b>97.1</b>	<b>96.2</b>	<b>98.2</b>	<b>100.1</b>	<b>102.1</b>	<b>100.6</b>
Stamped and enameled ware.....	89.0	90.4	90.4	89.7	88.7	88.9	92.9	89.3
Brass, bronze, and copper products.....	96.3	100.8	100.3	99.3	101.3	104.6	105.8	105.1
<b>Tobacco products</b> .....	<b>98.9</b>	<b>92.5</b>	<b>94.9</b>	<b>95.9</b>	<b>98.2</b>	<b>92.9</b>	<b>95.7</b>	<b>98.6</b>
Chewing and smoking tobacco and snuff.....	92.6	83.0	84.4	89.3	93.6	85.8	87.6	86.8
Cigars and cigarettes.....	99.8	93.7	96.3	96.7	98.7	93.8	96.7	100.0

**TABLE 5.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, SEPTEMBER, 1928, AND JULY, AUGUST, AND SEPTEMBER, 1929—Continued**

Industry	Employment				Pay-roll totals			
	1928	1929			1928	1929		
	Sep-tember	July	August	Sep-tember	Sep-tember	July	August	Sep-tember
<b>Vehicles for land transportation</b> .....	<b>101.5</b>	<b>101.7</b>	<b>100.8</b>	<b>99.9</b>	<b>101.4</b>	<b>98.4</b>	<b>100.1</b>	<b>104.8</b>
Automobiles.....	124.3	120.5	117.6	115.7	125.5	107.2	124.6	117.0
Carriages and wagons.....	89.0	81.0	87.9	85.0	95.7	85.1	94.5	92.2
Car building and repairing, electric-railroad.....	92.8	92.8	92.9	91.5	91.3	93.6	93.9	93.3
Car building and repairing, steam-railroad.....	83.4	85.7	86.3	86.5	82.0	89.7	94.3	93.2
<b>Miscellaneous industries</b> .....	<b>91.7</b>	<b>116.3</b>	<b>115.2</b>	<b>114.7</b>	<b>91.8</b>	<b>115.7</b>	<b>113.4</b>	<b>115.1</b>
Agricultural implements.....	103.5	122.2	116.2	109.2	105.0	121.9	119.7	108.1
Electrical machinery, apparatus, and supplies.....	98.0	126.2	126.9	127.3	98.3	127.0	126.3	130.8
Pianos and organs.....	76.6	61.6	57.9	65.4	76.3	56.3	53.1	63.6
Rubber boots and shoes.....	99.4	96.5	100.2	103.3	100.9	99.8	102.6	109.0
Automobile tires.....	109.8	111.8	107.2	102.3	116.0	106.3	100.9	92.9
Shipbuilding.....	78.4	107.5	105.0	105.8	78.9	109.8	104.5	110.6

Table 6 shows the general index of employment in manufacturing industries and the general index of pay-roll totals, by months, from January, 1923, to September, 1929.

Following Table 6 is a chart which represents the 54 industries combined and shows, by months, the course of pay-roll totals as well as the course of employment. It includes the years 1926 and 1927, as well as 1928, and January, February, March, April, May, June, July, August, and September, 1929.

**TABLE 6.—GENERAL INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JANUARY, 1923, TO SEPTEMBER, 1929**

[Monthly average, 1926=100]

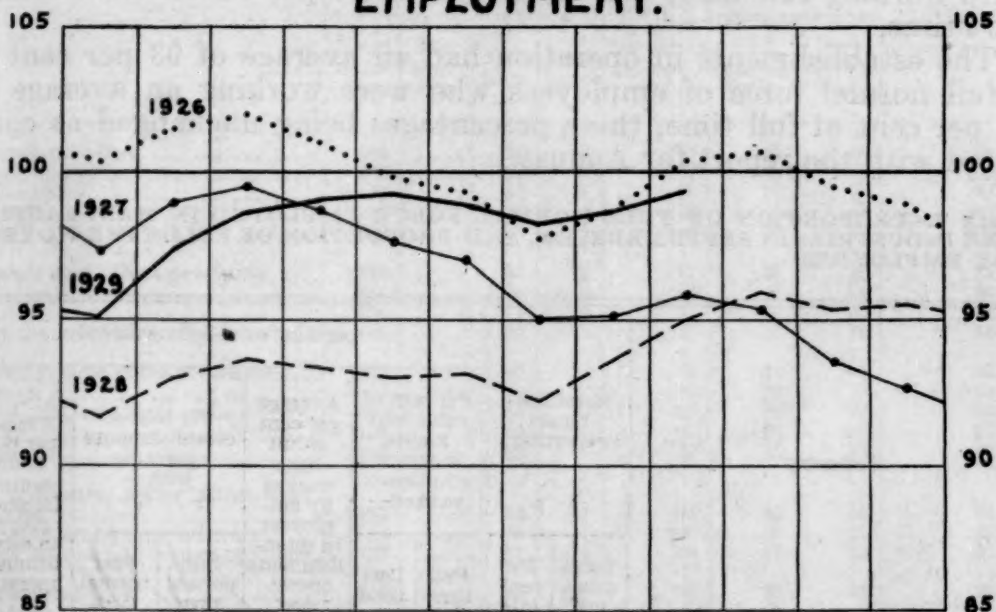
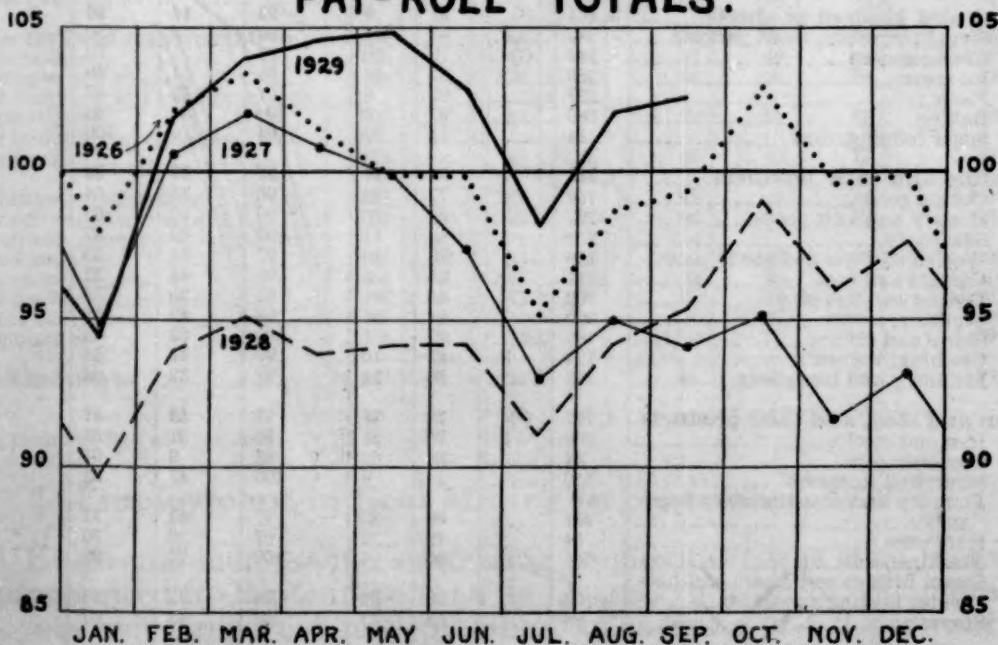
Month	Employment							Pay-roll totals						
	1923	1924	1925	1926	1927	1928	1929	1923	1924	1925	1926	1927	1928	1929
January.....	106.6	103.8	97.9	100.4	97.3	91.6	95.2	95.8	98.6	93.9	98.0	94.9	89.6	94.5
February.....	108.4	105.1	99.7	101.5	99.0	93.0	97.4	99.4	103.8	99.3	102.2	100.6	93.9	101.8
March.....	110.8	104.9	100.4	102.0	99.5	93.7	98.6	104.7	103.3	100.8	103.4	102.0	95.2	103.9
April.....	110.8	102.8	100.2	101.0	98.6	93.3	99.1	105.7	101.1	98.3	101.5	100.8	93.8	104.6
May.....	110.8	98.8	98.9	99.8	97.6	93.0	99.2	109.4	96.5	98.5	99.8	99.8	94.1	104.8
June.....	110.9	95.6	98.0	99.3	97.0	93.1	98.8	109.3	90.8	95.7	99.7	97.4	94.2	102.8
July.....	109.2	92.3	97.2	97.7	95.0	92.2	98.2	104.3	84.3	93.5	95.2	93.0	91.2	98.2
August.....	108.5	92.5	97.8	98.7	95.1	93.6	98.6	103.7	87.2	95.4	98.7	95.0	94.2	102.1
September.....	108.6	94.3	98.9	100.3	95.8	95.0	99.3	104.4	89.8	94.4	99.3	94.1	95.4	102.6
October.....	108.1	95.6	100.4	100.7	95.3	95.9	-----	106.8	92.4	100.4	102.9	95.2	99.0	-----
November.....	107.4	95.5	100.7	99.5	93.5	95.4	-----	105.4	91.4	100.4	99.6	91.6	96.1	-----
December.....	105.4	97.3	100.8	98.9	92.6	95.5	-----	103.2	95.7	101.6	99.8	93.2	97.7	-----
<b>Average</b> .....	<b>108.8</b>	<b>98.2</b>	<b>99.2</b>	<b>100.0</b>	<b>96.4</b>	<b>93.8</b>	<b>98.3</b>	<b>104.3</b>	<b>94.6</b>	<b>97.7</b>	<b>100.0</b>	<b>96.5</b>	<b>94.5</b>	<b>101.7</b>

<sup>1</sup> Average for 9 months.



**MANUFACTURING INDUSTRIES  
MONTHLY INDEXES, 1926-1929.**

MONTHLY AVERAGE 1926 = 100.

**EMPLOYMENT.****PAY-ROLL TOTALS.**

### Force Employed and Time Worked in Manufacturing Industries in September, 1929

TEN THOUSAND THREE HUNDRED AND THIRTY-SEVEN establishments in the 54 manufacturing industries reported as to force employed in September, 1929, and as to working time of employees. Forty per cent of the establishments had a full normal force of employees, 59 per cent were working with reduced forces, and less than one-half of 1 per cent were idle; employees in 84 per cent of the establishments were working full time, and employees in 15 per cent were working part time.

The establishments in operation had an average of 93 per cent of a full normal force of employees who were working an average of 98 per cent of full time, these percentages being unchanged as compared with the report for August.

TABLE 7.—PROPORTION OF FULL NORMAL FORCE EMPLOYED IN MANUFACTURING INDUSTRIES IN SEPTEMBER, 1929, AND PROPORTION OF FULL TIME WORKED BY EMPLOYEES

Industry	Establishments reporting		Operating establishments only					
			Per cent of establishments in which employees worked—		Average per cent of full time worked by employees in establishments operating	Per cent of establishments operating with—		Average per cent of full normal force employed in establishments operating
			Full time	Part time		Full normal force	Part normal force	
<b>Food and kindred products</b>	<b>1,464</b>	<b>(<sup>1</sup>)</b>	<b>91</b>	<b>9</b>	<b>93</b>	<b>44</b>	<b>56</b>	<b>91</b>
Slaughtering and meat packing	149		94	6	99	50	50	89
Confectionery	244	( <sup>1</sup> )	79	20	97	21	78	82
Ice cream	220		87	13	98	31	69	85
Flour	257		92	8	101	53	47	97
Baking	580		97	3	100	54	46	100
Sugar refining, cane	14		71	29	94		100	77
<b>Textiles and their products</b>	<b>1,731</b>	<b>1</b>	<b>83</b>	<b>17</b>	<b>97</b>	<b>39</b>	<b>60</b>	<b>89</b>
Cotton goods	439	1	77	22	96	35	64	86
Hosiery and knit goods	272		85	15	98	40	60	95
Silk goods	253	1	88	11	99	42	57	91
Woolen and worsted goods	169	1	80	19	97	34	65	86
Carpets and rugs	21		95	5	99	48	52	103
Dyeing and finishing	102		65	35	95	25	75	87
Clothing, men's	200	1	84	16	98	49	51	91
Shirts and collars	83		99	1	100	52	48	99
Clothing, women's	129	3	87	13	99	41	59	90
Millinery and lace goods	63		86	14	98	32	68	87
<b>Iron and steel, and their products</b>	<b>1,707</b>	<b>(<sup>1</sup>)</b>	<b>79</b>	<b>21</b>	<b>97</b>	<b>43</b>	<b>57</b>	<b>92</b>
Iron and steel	169	2	70	29	96	31	69	88
Cast-iron pipe	34		38	62	83	9	91	77
Structural ironwork	150		91	9	100	47	53	99
Foundry and machine-shop products	954		80	20	97	43	57	94
Hardware	54		78	22	97	30	70	88
Machine tools	144		96	4	100	71	29	126
Steam fittings and steam and hot-water heating apparatus	104		70	30	96	32	68	80
Stoves	98		65	35	93	43	57	95
<b>Lumber and its products</b>	<b>1,218</b>	<b>(<sup>1</sup>)</b>	<b>82</b>	<b>18</b>	<b>98</b>	<b>35</b>	<b>65</b>	<b>88</b>
Lumber, sawmills	560	1	83	16	98	37	63	87
Lumber, millwork	278	( <sup>1</sup> )	75	24	97	23	77	77
Furniture	380		86	14	99	41	59	96
<b>Leather and its products</b>	<b>376</b>		<b>87</b>	<b>13</b>	<b>98</b>	<b>53</b>	<b>47</b>	<b>98</b>
Leather	111		91	9	99	42	58	92
Boots and shoes	265		85	15	98	57	43	100

<sup>1</sup> Less than one-half of 1 per cent.

TABLE 7.—PROPORTION OF FULL NORMAL FORCE EMPLOYED IN MANUFACTURING INDUSTRIES IN SEPTEMBER, 1929, AND PROPORTION OF FULL TIME WORKED BY EMPLOYEES—Continued

Industry	Establishments reporting		Operating establishments only					
			Per cent of establishments in which employees worked—		Average per cent of full time worked by employees in establishments operating	Per cent of establishments operating with—		Average per cent of full normal force employed in establishments operating
			Full time	Part time		Full normal force	Part normal force	
<b>Paper and printing</b> .....	<b>904</b>		<b>92</b>	<b>8</b>	<b>99</b>	<b>51</b>	<b>49</b>	<b>99</b>
Paper and pulp.....	168		89	11	100	40	60	95
Paper boxes.....	158		81	19	98	34	66	93
Printing, book and job.....	280		94	6	99	45	55	105
Printing, newspapers.....	298		98	2	100	72	28	102
<b>Chemicals and allied products</b> .....	<b>310</b>		<b>83</b>	<b>17</b>	<b>97</b>	<b>26</b>	<b>74</b>	<b>81</b>
Chemicals.....	114		94	6	99	40	54	96
Fertilizers.....	156		71	29	94	10	90	54
Petroleum refining.....	40		100		100	30	70	84
<b>Stone, clay, and glass products</b> .....	<b>792</b>	<b>1</b>	<b>87</b>	<b>12</b>	<b>98</b>	<b>34</b>	<b>65</b>	<b>86</b>
Cement.....	93	1	98	1	100	29	70	78
Brick, tile, and terra cotta.....	495	1	86	13	97	32	67	84
Pottery.....	104		80	20	97	38	62	87
Glass.....	100		92	8	99	45	55	93
<b>Metal products, other than iron and steel</b> .....	<b>187</b>		<b>83</b>	<b>17</b>	<b>98</b>	<b>45</b>	<b>55</b>	<b>94</b>
Stamped and enameled ware.....	54		89	11	100	39	61	92
Brass, bronze, and copper products.....	133		81	19	98	47	53	95
<b>Tobacco products</b> .....	<b>213</b>	<b>(1)</b>	<b>69</b>	<b>30</b>	<b>95</b>	<b>38</b>	<b>62</b>	<b>96</b>
Chewing and smoking tobacco and snuff.....	23		74	26	95	52	48	87
Cigars and cigarettes.....	190	1	69	31	95	36	63	98
<b>Vehicles for land transportation</b> .....	<b>1,050</b>		<b>83</b>	<b>17</b>	<b>98</b>	<b>31</b>	<b>69</b>	<b>96</b>
Automobiles.....	176		77	23	97	40	60	105
Carriages and wagons.....	46		76	24	98	24	76	72
Car building and repairing, electric-railroad.....	355		82	18	99	39	61	90
Car building and repairing, steam-railroad.....	473		85	15	98	23	77	83
<b>Miscellaneous industries</b> .....	<b>385</b>		<b>82</b>	<b>18</b>	<b>98</b>	<b>49</b>	<b>51</b>	<b>102</b>
Agricultural implements.....	63		68	32	96	38	62	109
Electrical machinery, apparatus, and supplies.....	158		94	6	99	62	38	111
Pianos and organs.....	54		67	33	96	26	74	75
Rubber boots and shoes.....	8		88	13	99	75	25	98
Automobile tires.....	38		55	45	94	37	63	100
Shipbuilding.....	64		94	6	99	50	50	77
<b>All industries</b> .....	<b>10,337</b>	<b>(1)</b>	<b>84</b>	<b>15</b>	<b>98</b>	<b>40</b>	<b>59</b>	<b>93</b>

<sup>1</sup> Less than one-half of 1 per cent.

## 2. Employment in Coal Mining in September, 1929

THE seasonal increase in coal-mining employment was even more pronounced in September than in August, nearly 15,000 more employees being reported in September, an increase of 5.2 per cent over the preceding month. The 1,254 mines reported had in September 292,169 employees whose combined earnings in one week were \$8,113,451.



## Anthracite

IN ANTHRACITE MINING in September there was an increase of 11.9 per cent in employment and an increase of 32.4 per cent in pay-roll totals.

All anthracite mines reported are in Pennsylvania—the Middle Atlantic geographic division. The details for August and September are shown in Table 1.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL ANTHRACITE MINES IN AUGUST AND SEPTEMBER, 1929

Geographic division	Mines	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		August, 1929	September, 1929		August, 1929	September, 1929	
Middle Atlantic <sup>1</sup>	148	96,966	108,524	+11.9	\$2,586,586	\$3,425,603	+32.4

<sup>1</sup> See footnote 4, p. 120.

## Bituminous Coal

EMPLOYMENT in bituminous coal mining was 1.6 per cent greater in September than in August, and pay-roll totals were 6.2 per cent higher, as shown by reports from 1,106 mines in which there were in September 183,645 employees whose combined earnings in one week were \$4,687,848.

The outstanding percentage gains in both items were in the Mountain, West South Central, and West North Central geographic divisions. Smaller gains were reported in the East North Central, Pacific, and Middle Atlantic divisions, while the South Atlantic and East South Central showed a slight falling off in employment but with substantial increases in pay-roll totals.

Details for each geographic division, except the New England division for which no coal mining is reported, are shown in Table 2.

TABLE 2.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL BITUMINOUS COAL MINES IN AUGUST AND SEPTEMBER, 1929

Geographic division <sup>1</sup>	Mines	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		August, 1929	September, 1929		August, 1929	September, 1929	
New England							
Middle Atlantic	345	57,690	57,771	+0.1	\$1,469,495	\$1,500,384	+2.1
East North Central	171	30,751	31,525	+2.5	764,373	794,371	+3.9
West North Central	45	3,945	4,216	+6.9	89,905	100,562	+11.9
South Atlantic	236	37,579	37,298	-0.7	929,586	971,738	+4.5
East South Central	197	39,487	39,315	-0.4	831,959	857,157	+3.0
West South Central	25	1,463	1,702	+16.3	30,881	41,153	+33.3
Mountain	77	8,537	10,483	+22.8	256,998	374,449	+45.7
Pacific	10	1,327	1,335	+0.6	40,447	48,034	+18.8
All divisions	1,106	180,779	183,645	+1.6	4,413,644	4,687,848	+6.2

<sup>1</sup> See footnotes 3 to 11, p. 120.

### 3. Employment in Metalliferous Mining in September, 1929

**M**ETALLIFEROUS mines in September showed a decrease in employment of 1.1 per cent, while pay-roll totals increased 1.9 per cent. The 326 mines covered had in September 61,204 employees whose combined earnings in one week were \$1,836,837.

Details for each geographic division from which metalliferous mining is reported are shown in the following table:

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL **METALLIFEROUS MINES** IN AUGUST AND SEPTEMBER, 1929

Geographic division <sup>1</sup>	Mines	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		August, 1929	September, 1929		August, 1929	September, 1929	
New England.....							
Middle Atlantic.....	6	953	991	+4.0	\$28,335	\$29,121	+2.8
East North Central.....	39	11,203	11,427	+2.0	294,940	297,552	+0.9
West North Central.....	52	8,116	8,069	-0.6	240,585	241,545	+0.4
South Atlantic.....							
East South Central.....	13	4,234	3,904	-7.8	90,620	80,214	-11.5
West South Central.....	70	5,141	4,794	-6.8	127,291	121,686	-4.4
Mountain.....	125	30,305	30,143	-0.5	961,562	1,003,208	+4.3
Pacific.....	21	1,928	1,876	-2.7	59,503	63,511	+6.7
<b>All divisions.....</b>	<b>326</b>	<b>61,880</b>	<b>61,204</b>	<b>-1.1</b>	<b>1,802,836</b>	<b>1,836,837</b>	<b>+1.9</b>

<sup>1</sup> See footnotes 3 to 11, p. 120.

### 4. Employment in Quarrying and Nonmetallic Mining in September, 1929

**E**MPLOYMENT and pay-roll totals in this industrial group as a whole were practically unchanged in September as compared with August. The 673 establishments covered reported 39,543 employees whose combined earnings in one week were \$1,076,187.

Details for each geographic division are shown in the following table:

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL **QUARRIES AND NONMETALLIC MINES** IN AUGUST AND SEPTEMBER, 1929

Geographic division <sup>1</sup>	Establishments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		August, 1929	September, 1929		August, 1929	September, 1929	
New England.....	91	5,601	5,545	-1.0	\$169,193	\$164,042	-3.0
Middle Atlantic.....	100	6,775	6,729	-0.7	212,080	202,801	-4.4
East North Central.....	202	10,710	10,820	+1.0	341,895	347,327	+1.6
West North Central.....	72	2,864	2,955	+3.2	74,777	75,885	+1.5
South Atlantic.....	90	6,484	6,364	-1.9	121,635	120,093	-1.3
East South Central.....	47	2,856	2,944	+3.1	47,623	49,203	+3.3
West South Central.....	35	2,497	2,445	-2.1	62,701	64,655	+3.1
Mountain.....	10	212	178	-16.0	4,586	4,248	-7.4
Pacific.....	26	1,583	1,563	-1.3	40,842	47,933	+2.3
<b>All divisions.....</b>	<b>673</b>	<b>39,582</b>	<b>39,543</b>	<b>-0.1</b>	<b>1,081,332</b>	<b>1,076,187</b>	<b>-0.5</b>

<sup>1</sup> See footnotes 3 to 11, p. 120.

## 5. Employment in Public Utilities in September, 1929

**P**UBLIC utility companies reported a decrease of 0.5 per cent in employment in September and an increase of 0.5 per cent in pay-roll totals. The 9,373 companies concerned had in September 741,522 employees, whose combined earnings were \$21,820,818.

Details for each geographic division are shown in the following table:

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL PUBLIC UTILITIES ESTABLISHMENTS IN AUGUST AND SEPTEMBER, 1929

Geographic division <sup>1</sup>	Estab-lish-ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		August, 1929	September, 1929		August, 1929	September, 1929	
New England.....	366	41,218	41,598	+0.9	\$1,342,486	\$1,364,211	+1.6
Middle Atlantic.....	1,492	214,538	211,967	-1.2	6,600,443	6,550,051	-0.8
East North Central.....	1,628	197,372	196,677	-0.4	5,946,774	5,937,339	-0.2
West North Central.....	1,575	76,687	76,668	-( <sup>2</sup> )	2,037,063	2,094,870	+2.8
South Atlantic.....	830	56,182	55,837	-0.6	1,530,542	1,539,804	+0.6
East South Central.....	694	21,972	22,027	+0.3	508,294	515,528	+1.4
West South Central.....	1,025	44,321	44,381	+0.1	1,059,253	1,087,933	+2.7
Mountain.....	572	17,900	17,071	-4.9	465,908	472,178	+1.3
Pacific.....	1,191	74,936	75,296	+0.5	2,220,521	2,258,904	+1.7
<b>All divisions.....</b>	<b>9,373</b>	<b>745,186</b>	<b>741,522</b>	<b>-0.5</b>	<b>21,711,284</b>	<b>21,820,818</b>	<b>+0.5</b>

<sup>1</sup> See footnotes 3 to 11, p. 120.

<sup>2</sup> Less than one-tenth of 1 per cent.

## 6. Employment in Wholesale and Retail Trade in September, 1929

**E**MPLOYMENT in 7,910 establishments—wholesale and retail trade combined—showed a gain of 3.5 per cent in September as compared with August, and a gain of 3.9 per cent in pay-roll totals. These establishments had in September 285,770 employees whose combined earnings in one week were \$7,322,522.

## Wholesale Trade

EMPLOYMENT in wholesale trade alone showed small increases in 7 of the 9 geographic divisions and very small decreases in the East South Central and Pacific divisions. The 1,821 establishments reporting had in September 62,671 employees and pay-roll totals of \$1,941,391.

Details for each geographic division are shown in Table 1.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL WHOLESALE TRADE ESTABLISHMENTS IN AUGUST AND SEPTEMBER, 1929

Geographic division <sup>1</sup>	Estab-lish-ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		August, 1929	September, 1929		August, 1929	September, 1929	
New England.....	162	3,617	3,631	+0.4	\$104,517	\$103,476	-1.0
Middle Atlantic.....	325	9,894	9,957	+0.6	308,890	316,552	+2.5
East North Central.....	247	12,784	12,873	+0.7	389,240	400,310	+2.8
West North Central.....	206	11,885	12,070	+1.6	337,449	354,277	+5.0
South Atlantic.....	275	4,032	4,060	+0.7	120,795	122,034	+1.0
East South Central.....	59	2,025	1,995	-1.5	55,974	59,138	+5.7
West South Central.....	214	6,200	6,292	+1.5	171,720	178,270	+3.8
Mountain.....	56	1,511	1,546	+2.3	52,972	54,269	+2.4
Pacific.....	277	10,344	10,247	-0.9	338,567	353,065	+4.3
<b>All divisions.....</b>	<b>1,821</b>	<b>62,292</b>	<b>62,671</b>	<b>+0.6</b>	<b>1,880,124</b>	<b>1,941,391</b>	<b>+3.3</b>

<sup>1</sup> See footnotes 3 to 11, p. 120.



## Retail Trade

EIGHT of the nine geographic divisions showed considerable increase in employment in retail trade establishments. The Pacific division showed a falling-off in employment of 1.5 per cent, but this was caused by a termination of the rather general August sales in that district and consequent dropping of temporary employees.

The 6,089 establishments from which reports were received had in September 223,099 employees with pay-roll totals of \$5,381,131.

Details by geographic divisions are shown in Table 2.

TABLE 2.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL RETAIL TRADE ESTABLISHMENTS IN AUGUST AND SEPTEMBER, 1929

Geographic division <sup>1</sup>	Estab- lish- ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		August, 1929	September, 1929		August, 1929	September, 1929	
New England.....	76	12,439	12,524	+0.7	\$311,072	\$317,980	+2.2
Middle Atlantic.....	325	35,542	38,209	+7.5	931,759	995,334	+6.8
East North Central.....	2,269	76,745	80,299	+4.6	1,981,820	2,026,620	+2.3
West North Central.....	627	17,655	19,894	+12.7	389,486	423,769	+10.3
South Atlantic.....	900	19,720	20,285	+2.9	434,267	449,453	+3.5
East South Central.....	331	5,279	5,486	+3.9	105,187	107,671	+2.4
West South Central.....	96	7,592	7,784	+2.5	144,326	160,901	+11.5
Mountain.....	59	3,089	3,334	+7.9	59,232	61,215	+3.3
Pacific.....	1,406	35,815	35,284	-1.5	811,313	832,188	+2.6
<b>All divisions.....</b>	<b>6,089</b>	<b>213,876</b>	<b>223,099</b>	<b>+4.3</b>	<b>5,168,462</b>	<b>5,381,131</b>	<b>+4.1</b>

<sup>1</sup> See footnotes 3 to 11, p. 120.

## 7. Employment in Hotels in September, 1929

EMPLOYMENT in hotels increased very slightly in September as compared with August and pay-roll totals increased 0.8 per cent.

The end of the resort season in the New England and Mountain divisions was shown by decreased employment in those divisions, but each of the other seven divisions reported an upward trend. A part of this increase was due to increased business over Labor Day in "near-by" resorts and a part to breaks in homeward migration from distant resorts.

Per capita earnings, obtained by dividing the total number of employees into the total amount of pay roll, should not be interpreted as being the entire earnings of hotel employees. The pay-roll totals here reported are cash payments only, with no regard to the value of board or room furnished employees, and of course no satisfactory estimate can be made of additional recompense in the way of tips. The additions to the money wages granted vary greatly, not only among localities but among hotels in one locality and among employees in one hotel. Some employees are furnished board and room, others are given board only for one, two, or three meals, while the division of tips is made in many ways.

Per capita earnings are further reduced by the considerable amount of part-time employment in hotels caused by conventions and banquets or other functions.

The details for each geographic division are shown in the table following:

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL HOTELS  
IN AUGUST AND SEPTEMBER, 1929

Geographic division <sup>1</sup>	Hotels	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		August, 1929	September, 1929		August, 1929	September, 1929	
New England.....	119	10,544	10,337	-2.0	\$162,813	\$161,935	-0.5
Middle Atlantic.....	317	43,654	43,958	+0.7	766,400	770,943	+0.6
East North Central.....	317	32,822	32,951	+0.4	568,640	579,883	+2.0
West North Central.....	188	12,754	12,907	+1.2	178,465	185,160	+3.8
South Atlantic.....	157	10,873	11,094	+2.0	161,979	164,548	+1.6
East South Central.....	59	5,189	5,419	+4.4	64,101	67,272	+4.9
West South Central.....	94	7,060	7,107	+0.7	95,676	95,734	+0.1
Mountain.....	91	4,957	4,305	-13.2	82,738	75,685	-8.5
Pacific.....	327	17,218	17,328	+0.6	318,848	317,541	-0.4
<b>All divisions.....</b>	<b>1,669</b>	<b>145,071</b>	<b>145,406</b>	<b>+0.2</b>	<b>2,399,660</b>	<b>2,418,701</b>	<b>+0.8</b>

<sup>1</sup> See footnotes 3 to 11, p. 120.

## 8. Employment in Canning and Preserving in September, 1929

**E**MPLOYMENT in canning and preserving was 13.7 per cent greater in September than in August and pay-roll totals were 15.4 per cent higher, September marking usually the month of greatest employment in this industry.

Probably no industrial group has wider variations in employment than this one, as will be shown from month to month in the several geographic divisions, each division containing classes of highly specialized products, many of which have seasons extending over 1, 2, or 3 months only.

Variation in increases in employment in September among the eight geographic divisions showing gains ranged from 117.9 per cent and 114.8 per cent, in the East South Central and West North Central divisions, respectively, to 15.2 per cent and 13.6 per cent in the New England and Mountain divisions; the Pacific division showed a falling off of 14.4 per cent in number of employees.

In addition to the establishments included in the following table a considerable number of establishments in several districts reported that their specialized operation would not begin until a later date.

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL CANNING  
AND PRESERVING ESTABLISHMENTS IN AUGUST AND SEPTEMBER, 1929

Geographic division <sup>1</sup>	Estab-lish-ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		August, 1929	September, 1929		August, 1929	September, 1929	
New England.....	44	3,797	4,376	+15.2	\$55,415	\$80,424	+45.1
Middle Atlantic.....	37	10,035	13,339	+32.9	183,937	269,677	+46.6
East North Central.....	121	8,911	13,028	+46.2	125,579	189,677	+50.6
West North Central.....	36	2,581	5,544	+114.8	35,243	91,220	+158.8
South Atlantic.....	51	3,498	5,075	+45.1	26,400	65,929	+149.7
East South Central.....	8	274	597	+117.9	2,347	4,536	+93.3
West South Central.....	7	299	357	+19.4	1,846	2,338	+26.7
Mountain.....	30	3,897	4,427	+13.6	48,753	51,628	+5.9
Pacific.....	127	31,678	27,114	-14.4	650,353	548,997	-15.6
<b>All divisions.....</b>	<b>461</b>	<b>64,970</b>	<b>73,857</b>	<b>+13.7</b>	<b>1,129,873</b>	<b>1,303,826</b>	<b>+15.4</b>

<sup>1</sup> See footnotes 3 to 11, p. 120.

# Employment on Class I Steam Railroads in the United States

THE monthly trend of employment from January, 1923, to August, 1929, on Class I railroads—that is, all roads having operating revenues of \$1,000,000 or over—is shown by the index numbers published in Table 1. These index numbers are constructed from monthly reports of the Interstate Commerce Commission, using the monthly average for 1926 as 100.

TABLE 1.—INDEX OF EMPLOYMENT ON CLASS I STEAM RAILROADS IN THE UNITED STATES, JANUARY, 1923, TO AUGUST, 1929

[Monthly average, 1926=100]

Month	1923	1924	1925	1926	1927	1928	1929
January.....	98.3	96.9	95.6	95.8	95.5	89.3	88.2
February.....	98.6	97.0	95.4	96.0	95.3	89.0	88.9
March.....	100.5	97.4	95.2	96.7	95.8	89.9	90.1
April.....	102.0	98.9	96.6	98.9	97.4	91.7	92.2
May.....	105.0	99.2	97.8	100.2	99.4	94.5	94.9
June.....	107.1	98.0	98.6	101.6	100.9	95.9	96.1
July.....	108.2	98.1	99.4	102.9	101.0	95.6	96.6
August.....	109.4	99.0	99.7	102.7	99.5	95.7	97.4
September.....	107.8	99.7	99.9	102.8	99.1	95.3	-----
October.....	107.3	100.8	100.7	103.4	98.9	95.3	-----
November.....	105.2	99.0	99.1	101.2	95.7	92.9	-----
December.....	99.4	96.0	97.1	98.2	91.9	89.7	-----
<b>Average.....</b>	<b>104.1</b>	<b>98.3</b>	<b>97.9</b>	<b>100.0</b>	<b>97.5</b>	<b>92.9</b>	<b>93.1</b>

<sup>1</sup> Average for 8 months.

Table 2 shows the total number of employees on the 15th day each of August, 1928, and July and August, 1929, and pay-roll totals for the entire month of each month considered, by principal occupational groups and various important occupations.

In these tabulations data for the occupational group reported as "executives, officials, and staff assistants" are omitted.

TABLE 2.—EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES—AUGUST, 1928, AND JULY AND AUGUST, 1929

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items under the respective groups.]

Occupation	Number of employees at middle of month			Total earnings		
	August, 1928	July, 1929	August, 1929	August, 1928	July, 1929	August, 1929
<b>Professional, clerical, and general</b>	<b>271,959</b>	<b>272,400</b>	<b>272,653</b>	<b>\$39,889,239</b>	<b>\$40,165,266</b>	<b>\$40,544,538</b>
Clerks.....	155,528	154,310	154,270	21,773,201	21,686,417	21,929,782
Stenographers and typists.....	24,663	24,807	24,787	3,233,501	3,253,464	3,284,615
<b>Maintenance of way and structures</b>	<b>452,338</b>	<b>467,184</b>	<b>477,724</b>	<b>43,842,056</b>	<b>45,107,585</b>	<b>46,743,927</b>
Laborers, extra gang and work train.....	80,445	89,357	93,332	6,778,643	7,525,853	7,947,370
Laborers, track and roadway section.....	234,461	237,305	241,333	18,136,179	18,098,685	18,732,418
<b>Maintenance of equipment and stores</b>	<b>456,807</b>	<b>454,638</b>	<b>454,135</b>	<b>62,521,808</b>	<b>64,589,654</b>	<b>65,345,851</b>
Carmen.....	99,453	99,165	99,363	15,506,575	16,321,332	16,578,978
Machinists.....	55,119	54,365	54,118	8,999,140	9,284,381	9,406,443
Skilled trades helpers.....	100,221	101,618	101,547	11,640,107	12,457,280	12,608,426
Laborers (shops, engine houses, power plants, and stores).....	37,361	37,000	36,952	3,616,597	3,628,327	3,641,387
Common laborers (shops, engine houses, power plants, and stores).....	52,536	52,500	52,588	4,438,426	4,416,620	4,479,537

[1175]



TABLE 2.—EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES—AUGUST, 1928, AND JULY AND AUGUST, 1929—Continued

Occupation	Number of employees at middle of month			Total earnings		
	August, 1928	July, 1929	August, 1929	August, 1928	July, 1929	August, 1929
<b>Transportation, other than train engine and yard</b> .....	<b>198, 643</b>	<b>198, 238</b>	<b>197, 992</b>	<b>\$25, 729, 766</b>	<b>\$25, 591, 330</b>	<b>\$25, 776, 403</b>
Station agents.....	29, 868	29, 376	29, 348	4, 889, 325	4, 807, 455	4, 828, 789
Telegraphers, telephoners, and towermen.....	23, 449	23, 291	23, 300	3, 701, 318	3, 705, 233	3, 707, 194
Truckers (stations, warehouses, and platforms).....	33, 851	33, 541	33, 949	3, 412, 666	3, 294, 846	3, 424, 898
Crossing and bridge flagmen and gatemen.....	21, 284	20, 750	20, 650	1, 644, 246	1, 605, 795	1, 602, 056
<b>Transportation (yard masters, switch tenders, and hostlers)</b> ....	<b>22, 053</b>	<b>21, 782</b>	<b>21, 930</b>	<b>4, 462, 245</b>	<b>4, 424, 814</b>	<b>4, 461, 158</b>
<b>Transportation, train and engine</b> .....	<b>312, 105</b>	<b>313, 615</b>	<b>318, 150</b>	<b>66, 604, 750</b>	<b>67, 024, 557</b>	<b>69, 074, 672</b>
Road conductors.....	35, 676	35, 749	36, 173	8, 864, 824	9, 055, 829	9, 260, 548
Road brakemen and flagmen.....	70, 645	69, 430	70, 462	12, 850, 154	12, 932, 569	13, 330, 067
Yard brakemen and yard helpers.....	51, 297	52, 761	53, 607	9, 596, 648	9, 719, 308	10, 090, 000
Road engineers and motormen.....	42, 268	41, 975	42, 483	12, 192, 193	12, 069, 782	12, 407, 967
Road firemen and helpers.....	42, 884	42, 425	42, 842	9, 005, 866	8, 877, 940	9, 134, 093
<b>All employees</b> .....	<b>1, 713, 905</b>	<b>1, 727, 857</b>	<b>1, 742, 584</b>	<b>243, 049, 864</b>	<b>246, 993, 206</b>	<b>251, 946, 549</b>

### Changes in Employment and Pay Rolls in Various States

THE following data as to changes in employment and pay rolls have been compiled from reports received from the various State labor offices:

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES

#### Monthly period

State, and industry group	Per cent of change, July to August, 1929		State and industry group	Per cent of change, August to September, 1929	
	Employment	Pay roll		Employment	Pay roll
<b>Illinois</b>			<b>Iowa</b>		
Stone, clay, and glass products.....	-1.7	+2.8	Food and kindred products.....	+5.2	-----
Metals, machinery, and conveyances.....	+3.0	+4.6	Textiles.....	+5	-----
Wood products.....	+1.5	-11.7	Iron and steel works.....	-1.8	-----
Furs and leather goods.....	+2.1	+4.3	Lumber products.....	-7	-----
Chemicals, oils, paints, etc.....	-1.3	-1.2	Leather products.....	+6.1	-----
Printing and paper goods.....	+2.0	+1.6	Paper products, printing, and publishing.....	+11.7	-----
Textiles.....	-4	+6.9	Patent medicines, chemicals, and compounds.....	+2.1	-----
Clothing and millinery.....	-6.1	-7	Stone and clay products.....	-5.0	-----
Food, beverages, and tobacco.....	+1.7	-4	Tobacco and cigars.....	-3.8	-----
Miscellaneous.....	-2.9	+4.0	Railway-car shops.....	-9	-----
All manufacturing.....	+1.6	+3.2	Various industries.....	-2.2	-----
Trade, wholesale and retail services.....	+3.2	+2.2	All industries.....	+2	-----
Public utilities.....	-8	-7	<b>Maryland</b>		
Coal mining.....	-3	-5.3	Food products.....	+3.5	-0.1
Building and contracting.....	+9.7	+19.8	Textiles.....	-1.9	-6.7
All nonmanufacturing.....	+6	+4	Iron and steel and their products.....	+4.3	+4.3
All industries.....	+1.2	-1.8	Lumber and its products.....	+5.6	+7.1
	+1.4	+1.4	Leather and its products.....	+2.2	+5.2
			Rubber tires.....	-7.0	-23.0

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—  
Continued

## Monthly period—Continued

State, and industry group	Per cent of change, August to September, 1929		State, and industry group	Per cent of change, July to August, 1929	
	Employment	Pay roll		Employment	Pay roll
<b>Maryland—Continued</b>			<b>New Jersey</b>		
Paper and printing.....	+1.5	-3.2	Food and kindred products.....	+32.2	+23.1
Chemicals and allied products.....	+10.0	+12.2	Textiles and their products.....	-3.3	+4.0
Stone, clay, and glass products.....	-2.8	-7.3	Iron and steel and their products.....	+2.7	+3.3
Metal products, other than iron and steel.....	+3.6	-.2	Lumber and its products.....	-3.7	-2.8
Tobacco products.....	+7.9	+4.2	Leather and its products.....	+1.6	+5.0
Machinery (not including transportation equipment).....	+1.2	-1.4	Tobacco products.....	+2.0	+2.2
Musical instruments.....	-3.3	-7.5	Paper and printing.....	-.8	-2.6
Transportation equipment.....	-5.5	+12.9	Chemicals and allied products.....	+4.4	+4.1
Car building and repairing.....	-.4	-8.3	Stone, clay, and glass products.....	+1.2	+5.1
Miscellaneous.....	+12.7	+9.9	Metal products, other than iron and steel.....	+1.1	+4.3
All manufacturing.....	+1.3	-1.2	Vehicles for land transportation.....	-2.6	-2.1
Retail department stores.....	+2.7	+11.4	Miscellaneous.....	+1.8	+5.2
Wholesale establishments.....	-11.0	-4.9	All industries.....	+1.4	+3.9
Public utilities.....	-.2	-.1	<b>New York</b>		
Coal mines.....	+2	-13.6	Stone, clay, and glass.....	-1.7	-4.1
Hotels.....	-3.8	-2.3	Metals and machinery.....	-1.0	-.6
Quarries.....	-5.8	-2.0	Wood manufactures.....	-1.5	+8
Employment—index numbers (1919=100)			Furs, leather, and rubber goods.....	+4.2	+7.4
July, 1929	August, 1929		Chemicals, oils, paints, etc.....	+1.2	+1.5
			Paper.....	+4	-.3
			Printing and paper goods.....	+2	+2
			Textiles.....	-.1	+1.4
			Clothing and millinery.....	+4.8	+11.4
			Food and tobacco.....	-.2	-1.9
			Water, light, and power.....	+1.0	-.6
			All industries.....	+4	+1.4
<b>Massachusetts</b>			August to September, 1929		
Boots and shoes.....	63.1	67.0	<b>Oklahoma</b>		
Bread and other bakery products.....	112.5	110.6	Cottonseed-oil mills.....	+122.5	+89.5
Cars and general shop construction and repairs, steam railroads.....	70.0	70.2	Food production:		
Clothing, men's and women's.....	85.8	83.8	Bakeries.....	+42.7	+4.5
Confectionery.....	78.1	84.5	Confections.....	+15.9	+3.8
Cotton goods.....	56.5	55.8	Creameries and dairies.....	-14.3	+10.8
Dyeing and finishing textiles.....	100.2	87.9	Flour mills.....	-2.0	-3.4
Electrical machinery, apparatus, and supplies.....	104.6	109.2	Ice and ice cream.....	-7.7	-16.2
Foundry and machine-shop products.....	71.4	72.2	Meat and poultry.....	+10.1	+20.1
Furniture.....	100.2	101.8	Lead and zinc:		
Hosiery and knit goods.....	54.1	68.6	Mines and mills.....	-20.8	-21.9
Jewelry.....	98.5	98.7	Smelters.....	+37.2	+25.4
Leather, tanned, curried, and finished.....	87.8	87.9	Metals and machinery:		
Paper and wood pulp.....	92.9	93.7	Auto repairs, etc.....	-2.7	-8.7
Printing and publishing.....	108.1	107.0	Machine shops and foundries.....	+2.9	+3.2
Rubber footwear.....	92.2	94.7	Tank construction and erection.....	-8.8	+2.0
Rubber goods, tires, and tubes.....	82.5	82.5	Oil industry:		
Silk goods.....	92.9	91.0	Producing and gasoline manufacture.....	-6.6	-9.7
Textile machinery and parts.....	58.4	57.0	Refineries.....	-2.9	-6.7
Woolen and worsted goods.....	75.3	77.3	Printing: Job work.....	+2.2	+4.9
All industries.....	77.0	77.8	Public utilities:		
			Steam-railway shops.....	-.9	-1.7
			Street railways.....	+2.8	-1.2
			Water, light, and power.....	-2.0	-1.0

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—  
Continued

## Monthly period—Continued

State, and industry group	Per cent of change, August to September, 1929	
	Employment	Pay roll
<b>Oklahoma—Continued</b>		
Stone, clay, and glass:		
Brick and tile.....	+7.3	+0.2
Cement and plaster.....	-7.7	-10.0
Crushed stone.....	-2.4	-8.6
Glass manufacture.....	-4	+4.0
Textiles and cleaning:		
Textile manufacture.....	+55.3	+22.8
Laundries, etc.....	+3.2	-1.3
Woodworking:		
Sawmills.....	-1.0	+1.5
Millwork, etc.....	+9.0	+28.7
All industries.....	-4.3	-5.4
	Index numbers (1923=100)—employment	
	August, 1929	September, 1929
<b>Pennsylvania</b>		
Metal products.....	99.6	98.3
Transportation equipment.....	75.0	77.0
Textile products.....	100.3	102.8
Foods and tobacco.....	96.7	100.4
Stone, clay, and glass products.....	83.2	86.3
Lumber products.....	82.1	82.6
Chemical products.....	107.4	106.4
Leather and rubber products.....	100.5	103.0
Paper and printing.....	94.4	95.7
All industries.....	96.5	97.0
	Pay roll	
Metal products.....	107.9	104.3
Transportation equipment.....	75.8	75.5
Textile products.....	106.1	109.9
Foods and tobacco.....	97.6	102.9
Stone, clay, and glass products.....	86.4	80.3
Lumber products.....	82.4	84.6
Chemical products.....	117.8	113.2
Leather and rubber products.....	107.1	107.0
Paper and printing.....	109.7	115.8
All industries.....	103.4	101.2



## TREND OF EMPLOYMENT

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PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—  
Continued

## Yearly period

State, and industry group	Per cent of change, August, 1928, to August, 1929		State, and industry group	Employment—index numbers (1919- 1923=100)	
	Employ- ment	Pay roll		August, 1928	August, 1929
<b>California</b>			<b>Massachusetts—Con.</b>		
Stone, clay, and glass prod- ucts.....	+2.5	+1.1	Cotton goods.....	42.0	55.8
Metals, machinery, and conveyances.....	+15.4	+15.9	Dyeing and finishing.....	95.6	87.9
Wood manufactures.....	-5.0	-5.8	Electrical machinery, appa- ratus, and supplies.....	103.5	109.2
Leather and rubber goods.....	+10.7	+5.1	Foundry and machine-shop products.....	65.1	72.2
Chemicals, oils, paints, etc.....	+12.6	+17.2	Furniture.....	96.2	101.8
Printing and paper goods.....	+6.1	+6.9	Hosiery and knit goods.....	64.5	68.6
Textiles.....	+3.1	.0	Jewelry.....	102.0	98.7
Clothing, millinery, and laundrying.....	+6.2	+6.2	Leather, tanned, curried, and finished.....	82.7	87.9
Foods, beverages, and to- bacco.....	-9.5	-8.4	Paper and wood pulp.....	91.4	93.7
Water, light, and power.....	-4.0	-9.6	Printing and publishing.....	104.0	107.0
Miscellaneous.....	+41.0	+43.4	Rubber footwear.....	95.9	94.7
All industries.....	+3.0	+4.9	Rubber goods, tires, and tubes.....	87.2	82.5
	Employment—index numbers (1925- 1927=100)		Silk goods.....	104.6	91.0
	August, 1928	August, 1929	Textile machinery and parts Woolen and worsted goods.....	50.7 76.3	57.0 77.3
<b>Illinois</b>			All industries.....	74.2	77.8
Stone, clay, and glass prod- ucts.....	99.2	91.9		Per cent of change, August, 1928, to August, 1929	
Metals, machinery, and conveyances.....	98.2	116.2		Employ- ment	Pay roll
Wood products.....	79.1	73.2	<b>New York</b>		
Furs and leather goods.....	101.6	108.4	Stone, clay, and glass.....	+1.4	-3
Chemicals, oils, paints, etc.....	100.4	105.3	Metals and machinery.....	+13.0	+16.3
Printing and paper goods.....	101.8	102.7	Wood manufactures.....	-7.8	-5.6
Textiles.....	89.2	91.7	Furs, leather, and rubber goods.....	+6.8	+8.4
Clothing and millinery.....	89.9	82.6	Chemicals, oils, paints, etc.....	+7.4	+10.4
Foods, beverages, and to- bacco.....	94.5	97.5	Paper.....	+2.9	+4.2
All manufacturing.....	96.3	105.1	Printing and paper goods.....	+4.8	+7.4
Trade, wholesale and retail.....	82.5	87.9	Textiles.....	+1.6	+3.8
Public utilities.....	104.5	107.2	Clothing and millinery.....	+4.8	+7.1
Coal mining.....	61.1	76.0	Food and tobacco.....	-1.6	-3.4
Building and contracting.....	104.2	87.6	Water, light, and power.....	-4.6	-4.8
All industries.....	96.3	102.9	All industries.....	+6.3	+8.9
	(1919-1923=100)			September, 1928, to September, 1929	
<b>Massachusetts</b>			<b>Oklahoma</b>		
Boots and shoes.....	70.1	67.0	Cottonseed-oil mills.....	+74.6	+90.1
Bread and other bakery products.....	101.0	110.6	Food production: Bakeries.....	+5.4	-2
Cars and general shop con- struction and repairs, steam railroads.....	70.1	70.2	Confections.....	-30.0	-19.3
Clothing, men's and wom- en's.....	88.7	83.8	Creameries and dairies.....	+21.7	+9.8
Confectionery.....	81.9	84.5	Flour mills.....	+22.3	+11.9
			Ice and ice cream.....	+20.6	+9.0
			Meat and poultry.....	+8	-1.1
			Lead and zinc: Mines and mills.....	+104.6	+95.0
			Smelters.....	-9.0	13.9

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—  
Continued

Continued

Yearly period—Continued

State, and industry group	Per cent of change, September, 1928, to September, 1929		State, and industry group	Index numbers (1923- 1925=100)—employ- ment	
	Employ- ment	Pay roll		Septem- ber, 1928	Septem- ber, 1929
<b>Oklahoma—Continued</b>			<b>Pennsylvania</b>		
<b>Metals and machinery:</b>			Metal products.....	87.7	98.3
Auto repairs, etc.....	+36.0	+33.9	Transportation equipment.....	73.4	77.0
Machine shops and foundries.....	+22.0	+15.0	Textile products.....	94.0	102.8
Tank construction and erection.....	-5.1	-19.2	Foods and tobacco.....	99.2	100.4
<b>Oil industry:</b>			Stone, clay, and glass prod- ucts.....	83.2	86.3
Producing and gasoline manufacture.....	+38.4	+25.2	Lumber products.....	85.0	82.6
Refineries.....	+12.9	+48.8	Chemical products.....	97.7	106.4
<b>Printing: Job work.....</b>	+8.2	+9.0	Leather and rubber prod- ucts.....	98.7	103.0
<b>Public utilities:</b>			Paper and printing.....	93.3	95.7
Steam-railway shops.....	+1.5	+0	<b>All industries.....</b>	<b>86.9</b>	<b>97.0</b>
Street railways.....	+8.4	+13.3		<b>Pay roll</b>	
Water, light, and power.....	+80.7	+57.2	Metal products.....	89.6	104.3
<b>Stone, clay, and glass:</b>			Transportation equipment.....	72.1	75.5
Brick and tile.....	-7.4	-17.3	Textile products.....	99.0	109.9
Cement and plaster.....	-1	-5.0	Foods and tobacco.....	100.0	102.9
Crushed stone.....	+307.1	+175.3	Stone, clay, and glass prod- ucts.....	82.1	80.3
Glass manufacture.....	-8.7	-19.6	Lumber products.....	89.0	84.6
<b>Textiles and cleaning:</b>			Chemical products.....	104.1	113.2
Textile manufacture.....	+8.2	+16.7	Leather and rubber prod- ucts.....	104.9	107.0
Laundries, etc.....	+16.2	+13.1	Paper and printing.....	104.0	115.8
<b>Woodworking:</b>			<b>All industries.....</b>	<b>87.6</b>	<b>101.2</b>
Sawmills.....	-4.3	-4.9			
Millwork, etc.....	-13.6	-3.0			
<b>All industries.....</b>	<b>+24.1</b>	<b>+17.3</b>			

# UNEMPLOYMENT IN FOREIGN COUNTRIES

## Unemployment in Europe, Summer of 1929

THE following table on unemployment in 18 countries in Europe in the early summer of 1929 has been compiled from the August, 1929, issue of the Monthly Bulletin of Statistics of the League of Nations.

It will be noted that for 11 of the 18 countries listed below the unemployment figures are lower in the specified month in 1929 than they are for the corresponding month in 1928 and for certain countries considerably lower. For example, in Denmark the percentage of trade-union members <sup>a</sup> unemployed was 10.3 in June, 1929, as compared with 13.5 in the same month in the preceding year, and in Norway the percentages of unemployed (10 unions) for the two dates were, respectively, 14.4 and 11.3, the lower figure being for June, 1929. While 1,163,657 compulsorily insured persons in Great Britain and Northern Ireland are reported unemployed for June, 1929, this number was 73,703 less than for June, 1928. Increases, in varying amounts, are shown in number of unemployed persons in Czechoslovakia, Estonia, Finland, Germany, Hungary, Latvia, and Sweden.

TABLE 1.—UNEMPLOYMENT IN EUROPE IN JUNE, 1928 AND 1929

Country, and class of unemployed	1928		1929	
	Number	Per cent	Number	Per cent
Austria: Persons registered.....	140,931		133,090	
Belgium: Wholly unemployed members of unemployment insurance societies.....	3,709	0.6	2,551	0.4
Czechoslovakia: Persons in receipt of benefit.....	13,468	1.2	19,436	1.9
Denmark: Trade-unionists <sup>1</sup> .....	36,917	13.5	<sup>2</sup> 28,000	<sup>2</sup> 10.3
Estonia: Persons registered.....	883		1,110	
Finland: Persons registered.....	811		1,157	
France: Persons in receipt of benefit.....	1,659		394	
Germany:				
Trade-unionists wholly unemployed.....	268,443	6.2	393,749	8.5
Persons in receipt of benefit.....	610,687		722,948	
Hungary: Trade-unionists.....	13,861		14,608	
Irish Free State: Compulsorily insured persons.....	<sup>3</sup> 26,449	<sup>3</sup> 10.8	<sup>3</sup> 24,256	<sup>3</sup> 8.6
Italy: Persons registered as wholly unemployed.....	247,021		193,325	
Latvia: Persons registered.....	1,223		1,236	
Netherlands: Members of unemployment insurance societies <sup>4</sup> .....	14,302	4.4	<sup>2</sup> 10,109	<sup>2</sup> 3.1
Norway:				
Trade-unionists (10 unions) <sup>1</sup> .....	4,925	14.4	4,337	11.3
Persons registered.....	16,747		14,547	
Poland: Persons registered.....	<sup>5</sup> 116,719		<sup>5</sup> 105,065	
Sweden: Trade-unionists.....	21,257	7.6	21,764	7.4
Switzerland: Persons registered—wholly unemployed.....		1.2		.7
United Kingdom: <sup>6</sup> Compulsorily insured persons.....	1,273,360	10.7	1,163,657	9.8

<sup>1</sup> Includes only unions paying unemployment benefits.

<sup>2</sup> Provisional figures.

<sup>3</sup> May.

<sup>4</sup> Calculated from weekly average.

<sup>5</sup> First of following month.

<sup>6</sup> Great Britain and Northern Ireland.

\* Includes only unions paying unemployment benefits.



## Unemployment in Hungary, June, 1929

TABLE 2 shows the number of unemployed members of labor unions in Hungary at the end of June, 1929, by occupation and sex: <sup>2</sup>

TABLE 2.—UNEMPLOYMENT AMONG MEMBERS OF LABOR UNIONS AT THE END OF JUNE, 1929

Occupation	Number unemployed			Occupation	Number unemployed		
	Males	Fe- males	Total		Males	Fe- males	Total
Goldsmiths.....	37	6	43	Officials of financial insti- tutions.....	272	98	370
Barbers.....	21	3	24	Assistants of financial insti- tutions.....	5		5
Leather workers.....	122	178	300	Helpers.....	11		11
Luggage makers.....	42	3	45	Tailors.....	166	27	193
Shoemakers, machine.....	434	83	517	Hotel and restaurant work- ers.....	54	11	65
Food workers.....	462		462	Expressmen.....	134		134
Building workers.....	3,318		3,318	Engravers.....	66		66
Woodworkers.....	1,784	52	1,836	Textile workers.....	14	23	37
Chauffeurs.....	49		49	Glaziers.....	37	2	39
Graphic workers.....	74	74	148	Iron workers.....	3,196	43	3,239
Butchers.....	512		512	Chemical workers.....	11	2	13
Hat makers.....	82	56	138	Musicians.....	97	31	128
Commercial employees.....	139	11	150				
Shoemakers, hand.....	3		3	Total.....	12,090	1,874	13,964
Bookbinders.....	242	531	773				
Private employees.....	85	117	202				
Molders.....	67		67				
Printers.....	554	523	1,077				

Comparing the above total number of the unemployed with the total membership of the labor unions, which is about 150,000 in Hungary, it is seen that the unemployed union members constituted about 9.3 per cent of the total membership at the end of June, 1929.

The greatest number of unemployed appeared in the building and iron trades.

## Unemployment in the Netherlands in May, 1929

TABLE 3 shows the extent of unemployment in the industries covered by unemployment insurance during the period from April 29 to May 25, 1929: <sup>3</sup>

TABLE 3.—WORKERS RECEIVING UNEMPLOYMENT BENEFIT IN MAY, 1929

(Average per week, April 29 to May 25)

Industry	Number of workers studied	Unemployed		Working-days lost	
		Number	Per cent	Number	Average per un- employed worker
Earthenware.....	6,749	79	1.2	395	5.0
Diamond.....	6,113	872	14.3	4,468	5.1
Printing.....	18,821	658	3.5	3,916	6.0
Building.....	58,500	1,532	2.6	7,000	4.6
Woodworking.....	11,893	482	4.1	2,609	5.4
Clothing.....	6,551	471	7.2	2,067	4.4
Leather.....	3,593	47	1.3	244	5.2
Coal mining.....	7,928	1	.02	6	5.2
Metal industry, shipbuilding.....	50,630	1,734	3.4	9,475	5.5
Textile.....	30,334	577	1.9	2,049	3.5
Food and related industries.....	25,305	1,341	5.3	6,405	4.8
Agriculture and earth works.....	28,268	529	1.9	1,627	3.1
Fishery.....	1,739	7	.4	30	4.1
Traveling salesmen.....	4,740	20	.4	114	5.8
Transportation.....	46,217	643	1.4	2,849	4.4
Stores and warehouses.....	23,830	849	3.6	4,984	5.9
Other trade groups.....	34,568	978	2.8	4,840	4.9
Total.....	365,787	10,820	3.0	53,081	4.9

<sup>2</sup> Hungary. Budapest Székesfőváros. Statisztikai Hivatala, July, 1929, p. 52.

<sup>3</sup> Netherlands. Centraal Bureau Voor de Statistiek. Maandschrift, Aug. 31, 1929, pp. 1286, 1287.

From April 29 to May 25, 1929, there was a weekly average of 365,787 workers investigated as to their unemployment. Of these, 353,873 were insured against unemployment and 11,914 not insured. The average number of unemployed workers receiving benefit was 10,820 per week, or about 3 per cent of the total investigated. The number of workdays lost per week through unemployment was 53,081, or 4.9 days per week for each unemployed worker.

The highest percentages of unemployment appeared in the diamond and the clothing industries—14.3 and 7.2 per cent, respectively. The lowest percentage was in coal mining—0.02 per cent.

### Unemployment in Poland, 1928-29

THE NUMBER of unemployed workers on the registry of the employment bureaus during the year ending July 1, 1929, is shown by industry groups in Table 4:<sup>4</sup>

TABLE 4.—NUMBER OF UNEMPLOYED ON THE REGISTRY OF EMPLOYMENT BUREAUS IN POLAND ON SPECIFIED DATES

Industry or occupation group	1928		1929		
	July 1	Oct. 1	Jan. 1	Apr. 1	July 1
Mining.....	15,544	11,814	7,417	5,748	2,671
Metallurgy.....	1,986	1,267	1,336	1,249	712
Metal.....	6,618	4,377	6,720	8,327	5,869
Textile.....	13,817	7,275	10,308	12,741	20,904
Building.....	4,683	1,809	12,279	20,945	4,953
Other industries.....	6,883	4,669	7,183	9,719	6,205
Unskilled workers.....	48,701	33,789	65,372	93,725	49,644
Agriculture.....	1,781	1,435	1,000	2,788	1,882
Salaried employees.....	11,842	9,819	9,918	10,992	9,736
Minors.....	2,249	1,604	1,647	1,522	718
Domestic servants.....	2,615	2,027	2,259	2,738	1,771
Total.....	116,719	79,885	126,429	170,494	105,065

The decrease in the total number of unemployed workers on the registry of the employment bureaus on July 1, 1929, as compared with July 1, 1928, amounted to nearly 10 per cent. The number of unemployed miners on the registry decreased over 80 per cent, while the number of unemployed textile workers on the registry increased over 50 per cent from July 1, 1928, to July 1, 1929.

### Study of Unemployed Workers in Germany

UNDER the general provisions of the unemployment insurance act and under the act of December 24, 1928, providing benefit for unemployed seasonal workers, an investigation of the employment and unemployment history (*Arbeitsschicksal*) of all wage earners receiving unemployment benefit on March 15, 1919, was undertaken by the central office of the State employment service and unemployment insurance.

<sup>4</sup> Wiadomości Statystyczne, published by the Main Statistical Office of the Polish Republic, August 20, 1929, p. 616.

The first results of this investigation have been published in the Supplement to the Reichsarbeitsblatt.<sup>1</sup>

The number of unemployed wage earners in receipt of unemployment benefit in various forms from December 31, 1928, to March 15, 1929, is shown by the following table:

TABLE 1.—PERSONS IN RECEIPT OF UNEMPLOYMENT RELIEF ON SPECIFIED DATES IN GERMANY

Date	Number of wage earners in receipt of unemployment benefit		
	Men	Women	Total
Dec. 31, 1928.....	1,392,057	310,285	1,702,342
Jan. 15, 1929.....	1,705,223	341,046	2,046,269
Jan. 31, 1929.....	1,950,339	337,533	2,287,872
Feb. 15, 1929.....	2,026,541	329,282	2,355,823
Feb. 28, 1929.....	2,124,703	336,057	2,460,760
Mar. 15, 1929.....	1,996,831	327,836	2,324,667

The investigation covered only those wage earners who were receiving regular unemployment benefit on March 15, 1929, numbering 1,760,837 men (85 per cent) and 303,515 women (15 per cent), or a total of 2,064,352 wage earners. Those unemployed wage earners who were receiving emergency benefit (*Krisenunterstützung*) were excluded because they had either exhausted their regular benefit or were not yet qualified to receive a regular benefit.

The following information was collected for each unemployed wage earner under investigation: Sex, age, family status, dependents in receipt of family allowances, occupation, wage class, various benefits received during the last week, allowances for dependents, date on which the last claim to benefit was made, employment and unemployment status as expressed through the number of weeks of insurable employment and of unemployment for which a claim was made for any benefit (including that for sickness), number of periods of disqualification from benefit, other periods not taken into account in relation to the completion of the qualifying period<sup>2</sup> in accordance with section 95 of the unemployment insurance act, and, finally, any other periods not specified above.

The information was collected for three periods: (1) The year immediately preceding the date when the claim to benefit was made; (2) the period from the date when the claim was made up to the date of the investigation; and (3) the period preceding the first period and extending back to January 1, 1925.

According to the classification system in practice in employment service and under the benefit system for seasonally unemployed workers, the following industries and occupations are regarded as being seasonal: Agriculture and forestry; quarries and stone dressing; 50 per cent of the brick, tile, pottery, and glass industries, building and transportation; 50 per cent of day laborers and unskilled workers in all industries and occupations; and 10 per cent of technicians. It was found that of the 2,064,352 persons who on March 15, 1929, were

<sup>1</sup>Germany. Reichsarbeitsministerium. Reichsarbeitsblatt (Supplement), Heft Nr. 21, Berlin. July 25, 1929.

<sup>2</sup>Qualifying period is 26 weeks, during which contributions are paid to the unemployment insurance fund.



receiving regular unemployment benefit, 1,056,405 were seasonal workers and 1,007,945 were nonseasonal workers.

The length of employment under insurance during the year preceding unemployment<sup>3</sup> is shown in Table 2:

TABLE 2.—LENGTH OF EMPLOYMENT UNDER INSURANCE DURING THE YEAR PRECEDING UNEMPLOYMENT

Length of employment	Unemployed receiving regular benefit					
	Males		Females		Total	
	Number	Per cent	Number	Per cent	Number	Per cent
26 weeks.....	40,176	3.2	5,425	2.6	45,601	3.1
Over 26 to 39 weeks.....	442,840	35.6	58,105	28.0	500,945	34.5
Over 39 to 51 weeks.....	439,929	35.4	70,241	33.8	510,170	35.2
52 weeks.....	320,452	25.8	73,822	35.6	394,274	27.2
Total.....	1,243,397	100.0	207,593	100.0	1,450,990	100.0

The highest percentage (35.2) of the unemployed in receipt of regular benefit was for those who had been employed in the insurable industries and occupations from 39 to 51 weeks before unemployment.

Table 3 shows seasonal and nonseasonal unemployed workers in receipt of regular benefit, by industries and occupations:

TABLE 3.—UNEMPLOYED WORKERS IN RECEIPT OF REGULAR BENEFIT IN SEASONAL AND IN NONSEASONAL INDUSTRIES AND OCCUPATIONS ON MARCH 15, 1929

Industry or occupation	Number in receipt of regular benefit			Per cent of total		
	Males	Females	Total	Males	Females	Total
<i>Seasonal</i>						
Agriculture and forestry.....	86,980	52,210	139,190	5.0	17.2	6.7
Quarry, brick, tile, pottery, glass.....	100,423	-----	100,423	5.7	-----	4.9
Building.....	408,822	-----	408,822	23.2	-----	19.8
Building, helpers.....	207,718	-----	207,718	11.8	-----	10.1
Transport.....	14,295	-----	14,295	0.8	-----	0.7
Unskilled labor, all trades.....	156,913	27,593	184,506	8.9	9.1	8.9
Technicians.....	1,424	27	1,451	0.1	-----	0.1
Total.....	976,575	79,830	1,056,405	55.5	26.3	51.2
<i>Nonseasonal</i>						
Iron, steel, salt, peat.....	26,774	645	27,419	1.5	0.2	1.3
Quarry, brick, tile, pottery, glass.....	36,281	12,114	48,395	2.1	4.0	2.4
Metal working and engineering.....	194,241	10,865	205,106	11.0	3.6	9.9
Chemical.....	2,412	1,505	3,917	0.1	0.5	0.2
Textile.....	17,843	33,367	51,210	1.0	11.0	2.5
Wood pulp, paper.....	5,194	6,582	11,776	0.3	2.2	0.6
Leather.....	15,340	1,918	17,258	0.9	0.6	0.8
Woodworking.....	102,228	3,751	105,979	5.8	1.2	5.1
Food, drink, tobacco.....	29,896	29,292	59,188	1.8	9.7	2.9
Clothing.....	41,421	35,510	76,931	2.4	11.6	3.7
Sanitary services, etc., laundries.....	2,994	3,588	6,582	0.2	1.2	0.3
Printing and bookbinding.....	5,871	2,172	8,043	0.3	0.7	0.4
Industrial arts.....	726	137	863	-----	0.1	-----
Theatrical workers, musicians, etc.....	3,521	751	4,272	0.2	0.2	0.2
Hotels and restaurants.....	12,091	6,742	18,833	0.7	2.2	0.9
Transport.....	67,367	2,422	69,789	3.8	0.8	3.4
Domestic service.....	1,049	21,122	22,171	0.1	7.0	1.1
Unskilled labor, all trades.....	156,913	27,594	184,507	8.9	9.1	8.9
Machine men and stokers, all trades.....	14,740	-----	14,740	0.8	-----	0.7
Commercial employees.....	28,980	20,656	49,636	1.6	6.8	2.4
Office employees.....	4,984	2,514	7,498	0.3	0.8	0.4
Technicians.....	12,825	246	13,071	0.7	0.1	0.7
Liberal professions.....	571	192	763	0.0	0.1	-----
Total.....	784,262	223,685	1,007,947	44.5	73.7	48.8
Total, seasonal and nonseasonal.....	1,760,837	303,515	2,064,352	100.0	100.0	100.0

<sup>3</sup> The number of those unemployed workers in receipt of regular benefit whose employment could be traced back a year or more preceding unemployment was 1,306,322 males, 22,670 females, total 1,527,992; and the number of those whose employment could be traced back less than a year was 454,515 males, 81,845 females, total 536,360, on Mar. 15, 1929.

UNEMPLOYMENT IN FOREIGN COUNTRIES

the highest unemployment during 1928-29 was recorded in Germany, and 1,007,912 were unemployed during the year 1929. The number of unemployed in Germany during the year 1929 was 1,007,912, as compared with 1,007,912 in 1928.

TABLE 1. UNEMPLOYMENT IN FOREIGN COUNTRIES, 1928-29

Country	1928	1929
Germany	1,007,912	1,007,912
France	1,007,912	1,007,912
Italy	1,007,912	1,007,912
Japan	1,007,912	1,007,912
United States	1,007,912	1,007,912

## WHOLESALE AND RETAIL PRICES

### Retail Prices of Food in the United States

**T**HE following tables are compiled from monthly reports of actual selling prices <sup>1</sup> received by the Bureau of Labor Statistics from retail dealers.

Table 1 shows for the United States retail prices of food September 15, 1928, August 15 and September 15, 1929, as well as the percentage changes in the year and in the month. For example, the retail price per dozen of eggs was 50.4 cents on September 15, 1928; 48.2 cents on August 15, 1929; and 52.9 cents on September 15, 1929. These figures show increases of 5 per cent in the year and 10 per cent in the month.

The cost of various articles of food combined shows an increase of 2.1 per cent September 15, 1929, as compared with September 15, 1928, and an increase of 0.3 per cent September 15, 1929, as compared with August 15, 1929.

In addition to monthly retail prices of food and coal, the bureau publishes the prices of gas and electricity from each of 51 cities for the dates for which these data are secured.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE SEPTEMBER 15, 1929, COMPARED WITH AUGUST 15, 1929, AND SEPTEMBER 15, 1928

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (—) Sept. 15, 1929, compared with—	
		Sept. 15, 1928	Aug. 15, 1929	Sept. 15, 1929	Sept. 15, 1928	Aug. 15, 1929
		<i>Cents</i>	<i>Cents</i>	<i>Cents</i>		
Sirloin steak.....	Pound.....	51.8	52.4	51.5	-1	-2
Round steak.....	do.....	45.8	47.0	46.1	+1	-2
Rib roast.....	do.....	37.4	38.0	37.5	+0.3	-1
Chuck roast.....	do.....	30.4	31.1	30.7	+1	-1
Plate beef.....	do.....	20.6	21.3	21.2	+3	-0.4
Pork chops.....	do.....	44.3	40.4	40.7	-8	+1
Bacon, sliced.....	do.....	45.4	44.7	44.3	-2	-1
Ham, sliced.....	do.....	56.0	56.8	56.4	+1	-1
Lamb, leg of.....	do.....	40.3	40.3	39.5	-2	-2
Hens.....	do.....	37.9	39.4	39.2	+3	-1
Salmon, canned, red.....	do.....	33.3	31.7	31.8	-5	+0.3
Milk, fresh.....	Quart.....	14.2	14.3	14.3	+1	0
Milk, evaporated.....	16 oz. can.....	11.3	10.8	10.7	-5	-1
Butter.....	Pound.....	57.6	53.8	54.8	-5	+2
Oleomargarine (all butter substitutes).....	do.....	27.4	27.1	27.1	-1	0
Cheese.....	do.....	38.7	37.8	37.9	-2	+0.3
Lard.....	do.....	19.3	18.4	18.5	-4	+1
Vegetable lard substitute.....	do.....	24.9	24.8	24.7	-1	-0.4
Eggs, strictly fresh.....	Dozen.....	50.4	48.2	52.9	+5	+10
Bread.....	Pound.....	9.1	9.0	9.0	-1	0
Flour.....	do.....	5.3	5.2	5.3	0	+2
Corn meal.....	do.....	5.3	5.3	5.3	0	0
Rollod oats.....	do.....	9.0	8.9	8.9	-1	0
Corn flakes.....	6-oz. package.....	9.5	9.5	9.5	0	0
Wheat cereal.....	28-oz. package.....	25.6	25.5	25.5	-0.4	0
Macaroni.....	Pound.....	19.8	19.7	19.6	-1	-1
Rice.....	do.....	10.0	9.8	9.7	-3	-1
Beans, navy.....	do.....	12.7	14.4	14.5	+14	+1
Potatoes.....	do.....	2.2	4.0	3.9	+77	-3
Onions.....	do.....	5.8	6.4	5.8	0	-9
Cabbage.....	do.....	4.2	5.6	5.1	+21	-9
Beans, baked.....	No. 2 can.....	11.6	11.9	11.8	+2	-1
Corn, canned.....	do.....	15.9	15.8	15.8	-1	0
Peas, canned.....	do.....	16.8	16.6	16.6	-1	0
Tomatoes, canned.....	do.....	11.6	13.8	12.9	+11	-7
Sugar.....	Pound.....	7.0	6.6	6.7	-4	+2
Tea.....	do.....	77.4	77.5	77.6	+0.3	+0.1
Coffee.....	do.....	49.5	49.3	49.2	-1	-0.2
Prunes.....	do.....	13.8	15.0	15.9	+15	+6
Raisins.....	do.....	13.0	11.8	12.0	-8	+2
Bananas.....	Dozen.....	32.7	31.9	32.1	-2	+1
Oranges.....	do.....	66.1	45.5	44.2	-33	-3
Weighted food index.....					+2.1	+0.3

Table 2 shows for the United States average retail prices of specified food articles on September 15, 1913, and on September 15 of each year from 1923 to 1929, together with percentage changes in September of each of these specified years, compared with September, 1913. For example, the retail price per pound of butter was 37.7 cents in September, 1913; 55.0 cents in September, 1923; 48.5 cents in September, 1924; 55.8 cents in September, 1925; 52.5 cents in September, 1926; 53.4 cents in September, 1927; 57.6 cents in September, 1928; and 54.8 cents in September, 1929.

As compared with September, 1913, these figures show increases of 46 per cent in September, 1923; 29 per cent in September, 1924; 48



per cent in September, 1925, 39 per cent in September, 1926; 42 per cent in September, 1927; 53 per cent in September, 1928; and 45 per cent in September, 1929.

The cost of the various articles of food combined showed an increase of 57 per cent in September, 1929, as compared with September, 1913.

TABLE 2.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE SEPTEMBER 15 OF CERTAIN SPECIFIED YEARS COMPARED WITH SEPTEMBER 15, 1913

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Average retail price on Sept. 15—								Per cent of increase Sept. 15 of each specified year compared with Sept. 15, 1913							
	1913	1923	1924	1925	1926	1927	1928	1929	1923	1924	1925	1926	1927	1928	1929	
Sirloin steak.....pound..	Cts. 26.3	Cts. 41.1	Cts. 40.2	Cts. 41.6	Cts. 41.9	Cts. 43.8	Cts. 51.8	Cts. 51.5	56	53	58	59	67	97	96	
Round steak.....do.....	23.2	35.5	34.3	35.6	36.4	38.1	45.8	46.1	53	48	53	57	64	97	99	
Rib roast.....do.....	20.1	29.4	29.0	30.1	30.6	31.8	37.4	37.5	46	44	50	52	58	86	87	
Chuck roast.....do.....	16.4	21.0	20.9	22.0	22.7	24.0	30.4	30.7	28	27	34	38	46	85	87	
Plate beef.....do.....	12.3	13.1	13.2	13.9	14.5	15.5	20.6	21.2	7	7	13	18	26	67	72	
Pork chops.....do.....	22.8	36.7	35.8	40.4	42.5	40.7	44.3	40.7	61	57	77	86	79	94	79	
Bacon, sliced.....do.....	28.1	39.4	39.3	49.4	51.9	46.5	45.4	44.3	40	40	76	85	65	62	58	
Ham, sliced.....do.....	28.1	46.6	46.9	54.9	60.4	53.8	56.0	56.4	66	67	95	115	91	99	101	
Lamb, leg of.....do.....	18.7	37.5	36.8	38.5	39.1	38.5	40.3	39.5	101	97	106	109	106	116	111	
Hens.....do.....	21.5	35.0	35.3	36.6	37.8	35.4	37.9	39.2	63	64	70	76	65	76	82	
Salmon, canned, red.....pound..		31.3	31.3	34.1	37.2	33.9	33.3	31.8								
Milk, fresh.....quart..	8.9	14.0	13.9	14.2	14.0	14.1	14.2	14.3	57	56	60	57	58	60	61	
Milk, evaporated.....16-ounce can..		12.2	11.1	11.5	11.5	11.6	11.3	10.7								
Butter.....pound..	37.7	55.0	48.5	55.8	52.5	53.4	57.6	54.8	46	29	48	39	42	53	45	
Oleomargarine (all butter substitutes).....pound..		28.5	29.8	30.6	30.2	27.8	27.4	27.1								
Cheese.....do.....	22.1	37.0	34.6	37.0	36.1	37.7	38.7	37.9	67	57	67	63	71	75	71	
Lard.....do.....	16.1	17.9	20.0	24.0	22.3	19.2	19.3	18.5	11	24	49	39	19	20	15	
Vegetable lard substitute.....pound..		23.0	25.5	25.9	25.9	25.1	24.9	24.7								
Eggs, strictly fresh.....dozen..	37.7	48.6	51.9	51.9	51.5	48.7	50.4	52.9	29	38	38	37	29	34	40	
Bread.....pound..	5.6	8.7	8.8	9.4	9.4	9.3	9.1	9.0	55	57	68	68	66	63	61	
Flour.....do.....	3.3	4.5	5.1	6.1	5.8	5.5	5.3	5.3	36	55	85	76	67	61	61	
Corn meal.....do.....	3.1	4.2	4.8	5.4	5.1	5.2	5.3	5.3	35	55	74	65	68	71	71	
Rolled oats.....do.....		8.8	8.9	9.2	9.1	9.0	9.0	8.9								
Corn flakes.....8-ounce package..		9.7	10.1	11.0	10.9	9.7	9.5	9.5								
Wheat cereal.....28-ounce package..		24.4	24.2	24.8	25.4	25.5	25.6	25.5								
Macaroni.....pound..		19.7	19.6	20.4	20.2	20.1	19.8	19.6								
Rice.....do.....	8.7	9.5	10.3	11.3	11.7	10.6	10.0	9.7	9	18	30	34	22	15	11	
Beans, navy.....do.....		10.9	9.9	10.2	9.1	9.6	12.7	14.5								
Potatoes.....do.....	1.9	3.4	2.6	3.6	3.9	3.2	2.2	3.9	79	37	89	105	68	16	105	
Onions.....do.....		6.2	5.8	6.4	5.3	5.5	5.8	5.8								
Cabbage.....dc.....		4.6	4.2	4.7	4.2	4.1	4.2	5.1								
Beans, baked.....No. 2 can..		12.9	12.6	12.4	11.7	11.4	11.6	11.8								
Corn, canned.....do.....		15.5	16.0	18.1	16.4	15.6	15.9	15.8								
Peas, canned.....do.....		17.6	18.2	18.4	17.4	16.7	16.8	16.6								
Tomatoes, canned.....No. 2 can..		12.9	13.4	13.5	11.8	11.9	11.6	12.9								
Sugar, granulated.....pound..	5.7	9.6	8.6	7.0	7.0	7.2	7.0	6.7	68	51	23	23	26	23	18	
Tea.....do.....	54.5	69.7	71.0	75.8	77.0	77.2	77.4	77.6	28	30	39	41	42	42	42	
Coffee.....do.....	29.8	37.6	44.3	51.0	51.0	47.3	49.5	49.2	26	49	71	71	59	66	65	
Prunes.....do.....		18.8	17.4	17.3	17.1	15.2	13.8	15.9								
Raisins.....do.....		17.1	15.2	14.4	14.8	14.3	13.0	12.0								
Bananas.....dozen..		37.8	35.2	34.6	34.4	33.5	32.7	32.1								
Oranges.....do.....		51.0	48.8	61.0	50.7	55.3	66.1	44.2								
All articles combined <sup>1</sup> .....									45.7	43.3	55.2	54.7	50.3	53.8	57.0	

<sup>1</sup> Beginning with January, 1921, index numbers showing the trend in the retail cost of food have been composed of the articles shown in Tables 1 and 2, weighted according to the consumption of the average family. From January, 1913, to December, 1920, the index numbers included the following articles: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, lard, hens, flour, corn meal, eggs, butter, milk, bread, potatoes, sugar, cheese, rice, coffee, and tea.

Table 3 shows the trend in the retail cost of three important groups of food commodities, viz, cereals, meats, and dairy products, by years, from 1913 to 1928, and by months for 1927, 1928, and 1929. The articles within these groups are as follows:

Cereals: Bread, flour, corn meal, rice, rolled oats, corn flakes, wheat cereal, and macaroni.

Meats: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, hens, and leg of lamb.

Dairy products: Butter, cheese, fresh milk, and evaporated milk.

TABLE 3.—INDEX NUMBERS OF RETAIL COST OF CEREALS, MEATS, AND DAIRY PRODUCTS FOR THE UNITED STATES, 1913 TO SEPTEMBER, 1929

[Average cost in 1913=100.0]

Year and month	Cereals	Meats	Dairy products	Year and month	Cereals	Meats	Dairy products
1913: Average for year.....	100.0	100.0	100.0	1928: Average for year.....	167.2	179.2	150.0
1914: Average for year.....	106.7	103.4	97.1	January.....	168.0	168.3	152.2
1915: Average for year.....	121.6	99.6	96.1	February.....	168.0	167.8	150.7
1916: Average for year.....	126.8	108.2	103.2	March.....	166.8	167.1	150.7
1917: Average for year.....	186.5	137.0	127.6	April.....	167.2	170.3	147.8
1918: Average for year.....	194.3	172.8	153.4	May.....	168.3	175.4	147.3
1919: Average for year.....	198.0	184.2	176.6	June.....	169.8	177.7	146.1
1920: Average for year.....	232.1	185.7	185.1	July.....	169.3	184.4	147.1
1921: Average for year.....	179.8	158.1	149.5	August.....	168.2	189.5	148.3
1922: Average for year.....	159.3	150.3	135.9	September.....	166.7	195.8	151.2
1923: Average for year.....	156.9	149.0	147.6	October.....	165.9	188.9	151.1
1924: Average for year.....	160.4	150.2	142.8	November.....	165.3	184.9	152.5
1925: Average for year.....	176.2	163.0	147.1	December.....	164.2	179.1	153.5
1926: Average for year.....	175.5	171.3	145.5	1929:			
1927: Average for year.....	170.7	169.9	148.7	January.....	164.1	180.9	151.9
January.....	172.8	168.1	151.4	February.....	164.1	180.3	152.6
February.....	172.7	167.6	151.8	March.....	164.1	182.8	152.4
March.....	172.1	168.5	152.2	April.....	164.1	187.5	148.9
April.....	171.7	170.6	150.8	May.....	163.5	191.2	147.5
May.....	171.6	170.7	145.3	June.....	163.0	192.4	146.8
June.....	170.7	168.3	143.7	July.....	163.5	195.9	146.8
July.....	170.6	169.3	143.9	August.....	164.7	196.0	147.1
August.....	171.2	171.0	144.5	September.....	165.2	194.1	148.0
September.....	170.6	173.0	146.6				
October.....	170.5	173.7	149.4				
November.....	169.8	169.9	150.2				
December.....	168.6	168.1	152.8				

#### Index Numbers of Retail Prices of Food in the United States

IN TABLE 4 index numbers are given which show the changes in the retail prices of specified food articles, by years for 1913 and 1920 to 1928,<sup>2</sup> and by months for 1928 through September, 1929. These index numbers, or relative prices, are based on the year 1913 as 100 and are computed by dividing the average price of each commodity for each month and each year by the average price of that commodity for 1913. These figures must be used with caution. For example, the relative price of sirloin steak for the year 1928 was 188.2, which means that the average money price for the year 1928 was 88.2 per cent higher than the average money price for the year 1913. As compared with the relative price, 167.7 in 1927, the figures for 1928 show an increase of 20½ points, but an increase of 12.2 per cent in the year.

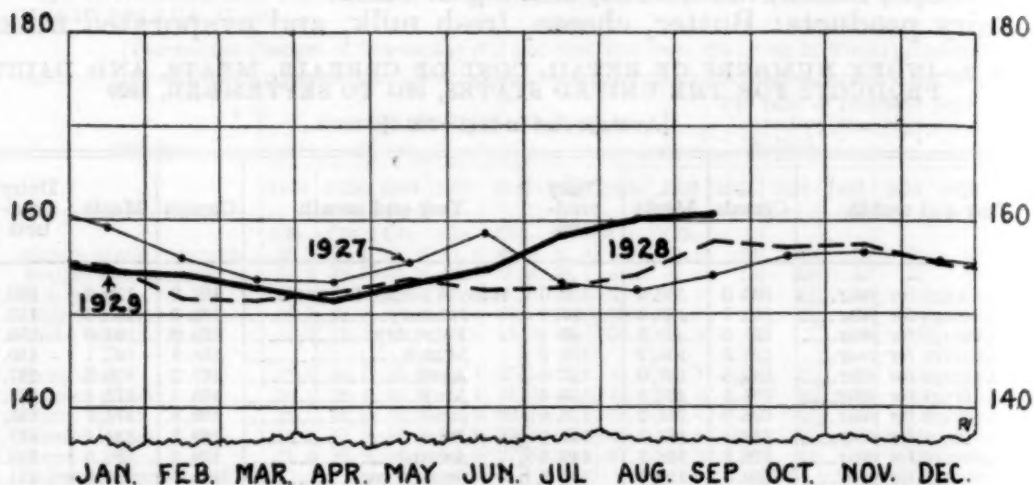
In the last column of Table 4 are given index numbers showing changes in the retail cost of all articles of food combined. Since January, 1921, these index numbers have been computed from the

<sup>2</sup> For index numbers of each month, January, 1913, to December, 1927, see Bulletin No. 396, pp. 44 to 61; Bulletin No. 418, pp. 38 to 51; Bulletin No. 445, pp. 36 to 49; and Bulletin No. 464, pp. 36 to 49.

average prices of the article of food shown in Tables 1 and 2, weighted according to the average family consumption in 1918. (See March, 1921, issue, p. 25.) Although previous to January, 1921, the number of food articles has varied, these index numbers have been so computed as to be strictly comparable for the entire period. The index

## TREND OF RETAIL PRICES OF FOOD

[1913=100]



numbers based on the average for the year 1913 as 100 are 160.2 for August, 1929, and 160.8 for September, 1929.

The curve shown in the accompanying chart pictures more readily to the eye the changes in the cost of the food budget than do the index numbers given in the table.



TABLE 4.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD BY YEARS, 1913, 1920 TO 1928, AND BY MONTHS FOR JANUARY, 1928, THROUGH SEPTEMBER, 1929

(Average for year 1913=100.0)

Year and month	Sirloin steak	Round steak	Rib roast	Chuck roast	Plate beef	Pork chops	Bacon	Ham	Hens	Milk	Butter	Cheese
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	172.1	177.1	167.7	163.8	151.2	201.4	193.7	206.3	209.9	187.6	183.0	188.2
1921	152.8	154.3	147.0	132.5	118.2	166.2	158.2	181.4	186.4	164.0	135.0	153.9
1922	147.2	144.8	139.4	123.1	105.8	157.1	147.4	181.4	169.0	147.2	125.1	148.9
1923	153.9	150.2	143.4	126.3	106.6	144.8	144.8	169.1	164.3	155.1	144.7	167.0
1924	155.9	151.6	145.5	130.0	109.1	146.7	139.6	168.4	165.7	155.1	135.0	159.7
1925	159.8	155.6	149.5	135.0	114.1	174.3	173.0	195.5	171.8	157.3	143.1	166.1
1926	162.6	159.6	153.0	140.6	120.7	188.1	186.3	213.4	182.2	157.3	138.6	165.6
1927	167.7	166.4	158.1	148.1	127.3	175.2	174.8	204.5	173.2	158.4	145.2	170.1
1928	188.2	188.3	176.8	174.4	157.0	165.7	163.0	196.7	175.6	159.6	147.5	174.2
1928: January	174.8	173.1	165.2	158.8	142.1	149.0	165.2	192.2	172.8	160.7	150.9	177.4
February	176.4	174.4	167.2	160.6	144.6	140.5	161.9	190.3	174.6	160.7	147.0	177.4
March	176.8	175.3	167.2	161.3	146.3	136.2	159.3	187.7	174.6	159.6	149.6	174.2
April	178.3	177.6	168.7	163.1	147.9	149.0	158.9	188.1	177.0	158.4	143.9	172.9
May	181.5	181.2	172.2	166.3	150.4	168.6	159.6	190.3	177.0	158.4	142.6	172.4
June	186.6	186.5	175.3	172.5	152.9	165.7	160.0	192.2	174.2	157.3	140.7	172.4
July	195.7	196.9	181.8	180.6	157.9	177.6	162.6	198.5	172.3	158.4	141.8	173.3
August	200.8	202.2	184.8	185.0	162.0	190.0	165.9	204.5	172.8	158.4	144.7	173.8
September	203.9	205.4	188.9	190.0	170.2	211.0	168.1	208.2	177.9	159.6	150.4	175.1
October	198.0	200.0	185.9	188.8	171.9	179.0	167.8	206.7	177.9	159.6	150.1	175.6
November	190.3	194.6	183.3	185.6	171.9	170.0	164.8	203.0	178.4	160.7	152.2	174.2
December	189.8	191.5	180.3	181.9	168.6	149.0	160.4	198.5	177.9	160.7	154.8	174.2
1929: January	190.6	191.0	180.8	181.3	170.2	153.8	159.3	200.0	184.0	160.7	150.7	173.8
February	188.2	188.8	178.8	179.4	167.8	157.1	158.2	199.6	186.4	160.7	152.7	172.9
March	188.6	189.2	179.3	180.0	167.8	167.6	158.9	201.9	190.1	160.7	152.5	172.9
April	192.9	194.6	183.8	184.4	170.2	176.7	160.4	203.3	196.2	159.6	145.7	172.4
May	198.4	201.3	187.9	190.0	174.4	179.5	160.7	204.8	198.1	159.6	142.3	171.9
June	201.6	205.4	189.9	191.9	176.0	179.0	162.2	205.6	193.9	159.6	140.5	171.9
July	206.7	210.8	192.9	195.6	177.7	188.1	164.1	209.7	187.3	160.7	139.4	171.5
August	206.3	210.8	191.9	194.4	176.0	192.4	165.6	211.2	185.0	160.7	140.5	171.0
September	202.8	206.7	189.4	191.9	175.2	193.8	164.1	209.7	184.0	160.7	143.1	171.5

Year and month	Lard	Eggs	Bread	Flour	Corn meal	Rice	Pota-toes	Sugar	Tea	Coffee	All arti-cles <sup>1</sup>
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	186.7	197.4	205.4	245.5	216.7	200.0	370.6	352.7	134.7	157.7	203.4
1921	113.9	147.5	176.8	175.8	150.0	109.2	182.4	145.5	128.1	121.8	153.3
1922	107.6	128.7	155.4	154.5	130.0	109.2	164.7	132.7	125.2	121.1	141.6
1923	112.0	134.8	155.4	142.4	136.7	109.2	170.6	183.6	127.8	126.5	146.2
1924	120.3	138.6	157.1	148.5	156.7	116.1	158.8	167.3	131.4	145.3	145.9
1925	147.5	151.0	167.9	184.8	180.0	127.6	211.8	130.9	138.8	172.8	157.4
1926	138.6	140.6	167.9	181.8	170.0	133.3	288.2	125.5	141.0	171.1	160.6
1927	122.2	131.0	166.1	166.7	173.3	123.0	223.5	132.7	142.5	162.1	155.4
1928	117.7	134.5	162.5	163.6	176.7	114.9	158.8	129.1	142.3	165.1	154.3
1928: January	119.6	162.0	164.3	160.6	173.3	117.2	176.5	129.1	142.3	162.8	155.1
February	115.8	124.9	164.3	160.6	173.3	117.2	176.5	129.1	142.1	163.1	151.6
March	112.7	107.2	162.5	160.6	173.3	116.1	200.0	129.1	142.3	163.8	151.4
April	112.7	103.8	162.5	163.6	176.7	114.9	205.9	129.1	141.9	164.1	152.1
May	114.6	108.7	162.5	169.7	176.7	114.9	194.1	130.9	141.9	164.4	153.8
June	115.2	112.5	164.3	172.7	176.7	113.8	170.6	132.7	142.1	165.1	152.6
July	116.5	120.6	164.3	169.7	176.7	114.9	135.3	132.7	142.3	165.1	152.8
August	118.4	130.4	164.3	163.6	176.7	113.8	129.4	129.1	142.3	165.8	154.2
September	122.2	146.1	162.5	160.6	176.7	114.9	129.4	127.3	142.3	166.1	157.8
October	123.4	157.4	162.5	157.6	176.7	113.8	129.4	125.5	142.5	166.4	156.8
November	120.9	171.9	162.5	154.5	176.7	112.6	129.4	123.6	142.3	166.8	157.3
December	118.4	169.3	160.7	154.5	176.7	113.8	129.4	121.8	142.1	166.8	155.8
1929: January	117.1	146.7	160.7	154.5	176.7	112.6	135.3	121.8	142.5	166.1	154.6
February	116.5	142.3	160.7	154.5	176.7	112.6	135.3	120.0	142.6	166.1	154.4
March	116.5	122.0	160.7	154.5	176.7	112.6	135.3	118.2	142.6	166.4	153.0
April	117.1	106.4	160.7	154.5	176.7	112.6	135.3	116.4	142.6	166.4	151.6
May	116.5	112.2	160.7	151.5	176.7	111.5	158.8	116.4	142.6	166.1	153.3
June	115.8	120.0	160.7	148.5	176.7	111.5	182.4	116.4	142.5	165.8	154.8
July	115.8	127.8	160.7	151.5	176.7	111.5	229.4	116.4	142.3	165.8	158.5
August	116.5	139.7	160.7	157.6	176.7	112.6	235.3	120.0	142.5	165.4	160.2
September	117.1	153.3	160.7	160.7	176.7	112.5	229.4	121.8	142.6	165.1	160.8

<sup>1</sup> 22 articles in 1913-1920; 43 articles in 1921-1929.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, SEPTEMBER 15, 1928, AND AUGUST 15 AND SEPTEMBER 15, 1929

[Exact comparison of prices in different cities can not be made for some articles, particularly meats and vegetables, owing to differences in trade practices]

Article	Atlanta, Ga.			Baltimore, Md.			Birmingham, Ala.			Boston, Mass.			Bridgeport, Conn.		
	1928		1929	1928		1929	1928		1929	1928		1929	1928		1929
	Sept. 15,	Aug. 15		Sept. 15,	Aug. 15		Sept. 15,	Aug. 15		Sept. 15,	Aug. 15		Sept. 15,	Aug. 15	
Sirloin steak, pound..	Cts. 48.3	Cts. 52.0	Cts. 50.0	Cts. 51.3	Cts. 53.1	Cts. 50.4	Cts. 51.1	Cts. 53.3	Cts. 51.7	Cts. 178.6	Cts. 176.0	Cts. 176.0	Cts. 62.5	Cts. 61.3	Cts. 60.2
Round steak, do.....	44.6	46.3	45.0	46.9	49.4	46.8	43.2	45.3	45.0	65.9	65.4	62.5	55.7	56.1	55.2
Rib roast, do.....	36.4	38.4	37.9	36.9	37.5	37.0	34.8	37.1	37.5	47.2	46.4	44.7	44.9	44.4	43.7
Chuck roast, do.....	29.5	32.4	31.2	30.7	31.2	30.5	29.0	30.7	30.5	35.3	36.4	35.5	37.7	36.9	36.5
Plate beef, do.....	19.3	20.5	21.0	21.5	22.0	22.0	19.3	21.0	20.3	24.3	24.5	22.1	18.1	17.6	17.0
Pork chops, do.....	39.8	39.1	38.4	44.2	40.1	39.7	38.7	37.1	36.8	48.6	43.5	42.8	49.1	42.6	43.4
Bacon, sliced, do.....	44.2	41.6	41.9	40.5	41.5	39.8	42.9	43.7	43.0	43.3	43.4	42.1	50.9	48.4	48.3
Ham, sliced, do.....	55.4	57.3	56.8	57.2	57.5	57.3	53.1	55.7	55.0	61.5	60.2	58.9	60.2	60.3	59.4
Lamb, leg of, do.....	40.5	40.8	40.8	38.8	38.4	39.2	46.0	41.0	40.5	42.0	41.1	39.6	42.7	41.1	39.7
Hens, do.....	35.0	36.5	38.1	40.2	40.7	41.2	32.0	33.2	34.2	41.2	44.3	42.7	41.2	42.3	41.5
Salmon, canned, red pound..	34.3	34.0	33.9	31.3	28.2	28.5	35.4	32.4	33.0	31.9	31.3	31.0	32.6	32.2	30.5
Milk, fresh, quart..	16.5	16.5	16.5	14.0	14.0	14.0	18.7	16.7	16.7	15.8	15.6	15.6	16.0	16.0	17.0
Milk, evaporated 16-ounce can..	13.5	12.8	12.2	11.0	10.4	10.3	12.0	11.8	11.5	11.7	11.1	11.1	11.6	10.8	10.8
Butter, pound.....	58.5	56.8	57.2	60.9	56.6	57.4	57.6	55.4	56.2	58.8	55.0	55.3	58.8	54.4	54.4
Oleomargarine (all butter substitutes) pound..	26.5	28.8	28.8	27.7	27.8	26.9	31.8	31.0	30.7	28.2	28.9	29.0	26.2	25.8	25.8
Cheese, do.....	36.7	36.1	35.4	37.5	36.2	36.8	38.2	36.2	36.2	40.7	40.6	39.9	43.4	43.8	43.8
Lard, do.....	18.8	18.0	18.3	18.5	17.2	17.3	19.1	18.0	18.1	19.3	18.4	18.2	18.5	17.5	17.6
Vegetable lard substitute, pound..	21.5	23.2	22.5	22.9	23.3	23.3	19.9	21.3	21.3	25.6	25.5	25.3	25.5	25.2	25.2
Eggs, strictly fresh dozen.....	45.5	46.3	52.2	46.4	46.0	52.5	46.9	45.5	48.7	71.0	68.1	72.5	70.3	63.5	70.6
Bread, pound.....	10.8	10.6	10.4	9.6	8.5	8.5	10.0	9.9	9.9	8.6	8.7	8.8	8.8	8.8	8.8
Flour, do.....	6.5	6.4	6.5	4.9	5.1	5.1	6.7	6.3	6.3	5.7	5.7	5.6	5.3	5.4	5.5
Corn meal, do.....	4.3	4.4	4.4	4.1	4.2	4.1	4.2	4.2	4.2	6.9	6.6	6.5	7.2	7.1	7.1
Rolled oats, do.....	9.1	9.7	9.7	8.2	8.1	8.2	9.9	9.5	9.6	8.9	8.6	8.6	8.6	8.5	8.5
Corn flakes 8-ounce package..	9.9	9.9	9.8	8.6	8.8	8.8	10.1	9.8	9.8	9.4	9.3	9.1	9.4	9.3	9.3
Wheat cereal 28-ounce package..	26.3	27.1	27.2	24.3	24.0	24.3	27.6	27.1	26.9	25.0	25.2	25.1	24.6	24.2	24.1
Macaroni, pound.....	21.0	21.5	21.4	19.2	18.8	18.8	18.6	18.5	18.1	21.3	21.1	21.1	22.1	22.2	22.0
Rice, do.....	9.2	9.6	9.5	9.0	9.0	9.0	9.3	9.0	9.1	11.1	10.4	10.5	10.1	10.6	10.6
Beans, navy, do.....	13.3	16.3	16.5	12.1	13.9	14.0	12.8	15.1	15.1	12.3	13.4	13.7	12.0	14.5	14.5
Potatoes, do.....	3.3	4.5	4.8	1.9	4.1	4.0	3.4	4.9	4.7	2.2	4.5	3.8	2.1	4.1	3.5
Onions, do.....	7.5	8.2	7.7	7.0	6.2	5.7	6.9	7.5	7.3	6.9	7.0	5.7	5.8	6.8	5.3
Cabbage, do.....	4.6	6.8	5.4	4.6	6.2	4.8	5.0	6.1	5.6	5.2	7.0	6.1	4.8	6.8	5.7
Beans, baked No. 2 can..	11.0	11.4	11.7	10.7	11.0	10.9	11.0	11.8	11.9	12.4	12.8	12.5	11.6	11.9	11.9
Corn, canned, do.....	17.5	17.9	18.0	15.4	17.0	16.5	16.8	16.9	16.6	17.6	17.8	17.6	19.0	17.8	17.8
Peas, canned, do.....	19.2	19.2	19.2	15.1	15.3	15.0	20.0	18.9	19.2	19.9	19.9	19.7	21.2	19.2	18.9
Tomatoes, canned No. 2 can..	10.4	14.1	12.8	10.2	12.8	10.9	10.1	13.4	12.2	12.3	14.0	13.0	13.5	14.8	14.6
Sugar, pound.....	7.5	7.2	7.3	6.1	5.8	5.9	7.4	6.8	6.9	7.0	6.4	6.4	6.8	6.5	6.5
Tea, do.....	105.9	105.7	105.7	73.5	72.5	72.5	97.4	95.6	95.6	72.3	74.8	74.5	61.0	57.2	57.2
Coffee, do.....	49.8	51.7	50.7	44.8	45.4	45.4	51.3	52.4	51.8	53.6	53.9	53.2	47.9	47.5	47.7
Prunes, do.....	14.9	16.4	16.9	11.9	12.5	13.5	16.5	17.9	18.3	12.8	14.9	15.1	15.4	15.1	16.0
Raisins, do.....	14.3	14.2	14.3	12.4	11.1	11.2	14.1	13.0	12.4	12.2	10.7	10.9	13.0	11.9	12.1
Bananas, dozen.....	29.4	27.1	27.5	24.5	24.0	23.7	38.3	37.1	37.1	41.7	38.0	35.0	32.5	31.0	32.0
Oranges, do.....	63.2	41.5	39.0	65.1	40.4	39.2	61.2	46.3	44.8	75.1	52.0	50.4	74.0	52.2	57.0

<sup>1</sup> The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

# WHOLESALE AND RETAIL PRICES

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TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, SEPTEMBER 15, 1928, AND AUGUST 15 AND SEPTEMBER 15, 1929—Continued

Article	Buffalo, N. Y.			Butte, Mont.			Charleston, S. C.			Chicago, Ill.			Cincinnati, Ohio		
	1928		1929	1928		1929	1928		1929	1928		1929	1928		1929
	Sept. 15,	Aug. 15		Sept. 15,	Aug. 15		Sept. 15,	Aug. 15		Sept. 15,	Aug. 15		Sept. 15,	Aug. 15	
Sirloin steak—pound	53.7	53.5	52.9	36.6	40.7	40.5	38.6	38.8	38.5	58.7	56.3	56.0	48.5	49.2	49.1
Round steak—do	46.9	46.1	45.6	34.7	38.4	37.7	35.7	35.7	38.5	49.1	49.0	47.9	44.4	46.1	45.9
Rib roast—do	37.6	38.1	37.6	31.7	33.9	33.5	31.1	32.2	32.2	42.8	41.4	41.3	37.0	39.2	38.6
Chuck roast—do	32.0	32.3	31.8	24.7	27.0	27.0	25.0	26.2	25.4	36.5	34.2	34.6	29.0	29.8	30.1
Plate beef—do	20.0	20.7	20.9	17.2	18.3	17.7	18.6	20.8	20.8	21.0	20.5	20.4	20.8	22.9	22.6
Pork chops—do	49.7	44.3	44.5	39.5	39.3	39.5	35.7	35.2	35.4	45.7	41.5	41.5	45.9	40.2	40.9
Bacon, sliced—do	41.7	41.7	41.7	51.3	51.3	48.8	37.8	37.9	38.6	49.4	49.6	49.5	40.4	40.4	39.0
Ham, sliced—do	55.5	55.8	55.7	57.5	58.8	58.3	48.3	48.1	48.1	57.3	56.8	56.9	54.5	55.9	55.9
Lamb, leg of—do	36.7	36.4	35.5	37.7	40.2	39.8	43.3	43.0	43.0	41.2	40.3	39.2	39.8	40.2	40.2
Hens—do	40.4	40.6	39.9	34.9	36.0	35.3	36.7	38.9	38.1	41.0	41.4	40.5	39.4	40.0	40.2
Salmon, canned, red															
—pound	31.1	29.1	29.7	32.2	32.0	30.3	29.5	29.4	29.4	36.1	32.9	32.6	31.7	29.3	29.7
Milk, fresh—quart	13.0	14.0	14.0	14.0	14.0	14.0	18.7	19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0
Milk, evaporated															
—16-ounce can	11.1	10.4	10.3	10.5	10.6	10.6	11.5	10.2	10.2	11.1	10.6	10.4	11.2	10.8	10.6
Butter—pound	58.0	52.6	54.3	55.8	52.5	54.0	55.6	52.7	53.1	56.1	51.7	52.7	59.1	54.5	55.5
Oleomargarine (all butter substitutes)															
—pound	27.5	26.0	25.9				28.7	27.9	27.7	26.7	26.6	26.6	28.2	27.9	27.7
Cheese—do	39.9	38.7	39.8	38.2	36.5	36.5	35.4	32.3	31.9	43.3	41.9	42.6	40.1	38.6	38.6
Lard—do	18.4	17.3	17.4	22.0	21.1	21.4	18.7	18.8	18.9	19.5	18.4	18.6	19.1	17.3	17.6
Vegetable lard substitute—pound	25.7	24.6	24.8	30.3	30.2	30.7	21.3	20.8	20.8	26.2	25.9	25.8	25.7	26.1	26.1
Eggs, strictly fresh—dozen	52.4	52.3	55.8	49.5	51.2	56.3	50.1	46.6	49.8	50.6	48.4	51.6	48.2	43.6	48.2
Bread—pound	8.7	8.3	8.3	9.8	9.8	9.8	11.0	11.0	11.0	9.9	9.9	9.7	8.5	8.7	8.7
Flour—do	4.7	4.9	4.8	5.2	5.2	5.2	6.8	6.5	6.5	4.6	4.7	4.6	5.6	5.5	5.5
Corn meal—do	5.0	4.9	5.0	6.2	6.4	6.4	3.9	4.1	4.1	7.0	6.4	6.1	4.6	4.7	4.6
Rollod oats—do	8.7	8.5	8.6	7.8	8.2	8.1	9.2	9.4	9.4	8.4	8.2	8.2	9.0	8.9	9.0
Corn flakes															
—8-ounce package	9.1	9.2	9.2	10.5	10.3	10.3	10.2	10.0	10.0	9.2	9.2	9.2	9.6	9.6	9.6
Wheat cereal															
—28-ounce package	25.0	24.9	24.9	28.1	28.0	28.1	25.6	25.0	25.0	25.7	24.3	24.5	24.9	24.8	24.8
Macaroni—pound	21.3	21.3	21.3	19.5	19.9	19.9	18.5	19.2	19.2	19.1	18.2	18.5	18.1	18.2	18.1
Rice—do	9.9	8.9	8.9	11.3	10.5	10.6	6.8	6.7	6.8	10.5	10.5	10.4	10.0	9.6	9.8
Beans, navy—do	12.6	14.8	14.6	11.4	14.0	13.7	13.4	15.6	15.9	13.0	13.9	13.7	13.1	13.7	13.8
Potatoes—do	2.0	4.0	3.6	1.9	4.0	3.2	2.3	4.3	4.6	2.3	3.9	3.8	2.4	3.9	3.8
Onions—do	6.6	7.3	6.6	4.8	7.3	5.4	6.6	8.0	6.6	5.7	5.8	5.7	5.6	5.9	5.8
Cabbage—do	3.8	5.4	4.8	4.0	5.4	4.4	5.2	7.1	5.6	4.0	4.9	5.0	4.4	5.0	5.5
Beans, baked															
—No. 2 can	10.1	10.1	10.3	13.8	13.6	13.7	10.4	11.0	11.0	12.9	12.8	12.7	10.7	11.5	11.5
Corn, canned—do	15.8	15.8	15.7	14.8	14.8	14.3	14.5	14.8	14.4	16.1	15.4	15.4	15.2	15.7	15.6
Peas, canned—do	16.1	15.6	15.7	13.9	14.4	14.3	16.2	16.3	16.3	17.2	16.4	16.3	16.9	16.6	16.6
Tomatoes, canned															
—No. 2 can	12.6	14.1	13.9	13.3	12.4	12.9	9.8	11.8	10.2	13.6	14.3	14.0	11.9	14.5	13.9
Sugar—pound	6.7	6.2	6.3	8.3	7.6	7.6	6.6	6.5	6.5	6.9	6.4	6.5	7.3	6.7	6.9
Tea—do	68.1	67.7	67.7	82.0	82.6	82.6	81.5	81.2	81.2	69.2	68.8	68.6	79.8	79.3	79.3
Coffee—do	46.8	47.7	48.0	55.5	55.1	55.1	45.8	46.9	47.4	47.7	46.9	46.7	45.4	45.9	45.7
Prunes—do	13.7	14.4	15.0	14.7	15.0	15.3	11.1	12.7	15.7	15.5	16.8	17.9	13.7	15.4	16.2
Raisins—do	12.6	11.2	12.0	14.4	13.6	13.4	12.0	10.2	10.4	13.8	11.3	11.5	13.9	12.1	11.9
Bananas—dozen	37.4	39.8	39.9	11.8	13.8	13.8	25.6	25.6	24.4	38.3	38.8	38.2	39.2	36.9	38.3
Oranges—do	66.6	50.6	44.8	67.5	47.7	49.3	67.0	38.6	35.3	67.2	50.1	49.5	64.5	46.8	46.8

<sup>1</sup> Per pound.



TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, SEPTEMBER 15, 1928, AND AUGUST 15 AND SEPTEMBER 15, 1929—Continued

Article	Cleveland, Ohio			Columbus, Ohio			Dallas, Tex.			Denver, Colo.			Detroit, Mich.		
	Sept. 15, 1928	1929		Sept. 15, 1928	1929		Sept. 15, 1928	1929		Sept. 15, 1928	1929		Sept. 15, 1928	1929	
		Aug. 15	Sept. 15		Aug. 15	Sept. 15		Aug. 15	Sept. 15		Aug. 15	Sept. 15			
Sirloin steak.....pound	50.9	50.6	49.5	50.7	50.5	51.1	43.6	48.1	48.2	43.8	46.3	44.1	53.7	55.2	54.2
Round steak.....do	45.5	45.2	43.7	44.3	46.5	46.8	41.3	46.4	46.1	39.7	42.3	40.5	45.2	47.0	45.9
Rib roast.....do	35.9	36.1	35.9	37.9	40.5	40.5	34.9	37.6	38.0	32.9	33.2	31.3	38.6	40.5	39.6
Chuck roast.....do	31.2	32.5	31.8	33.0	33.5	33.3	28.8	31.1	31.6	27.5	28.9	27.1	31.7	32.4	32.0
Plate beef.....do	20.7	21.0	20.9	22.4	24.2	23.6	22.3	24.8	24.8	16.6	18.5	17.9	20.6	21.6	21.4
Pork chops.....do	47.9	42.4	41.4	42.4	37.4	37.9	38.4	38.0	38.6	43.2	39.1	38.9	49.0	44.0	43.2
Bacon, sliced.....do	44.7	43.0	41.3	46.8	45.5	45.9	45.2	42.0	41.0	44.5	42.4	42.2	47.2	45.8	45.5
Ham, sliced.....do	58.0	57.8	56.9	55.4	54.1	53.6	56.8	59.6	59.2	54.8	56.3	56.1	60.8	61.9	60.6
Lamb, leg of.....do	39.8	39.3	38.0	46.7	46.2	46.2	45.3	45.3	45.0	36.8	37.8	36.3	41.2	40.8	39.7
Hens.....do	39.9	38.9	39.2	38.2	38.6	38.2	32.4	34.8	35.0	30.6	33.2	32.5	40.6	42.0	41.5
Salmon, canned, red															
pound	32.5	32.3	32.6	37.2	33.0	32.9	37.4	33.7	33.9	34.2	32.1	32.7	32.6	31.0	31.8
Milk, fresh.....quart	13.3	13.3	13.3	11.0	12.0	12.0	13.0	13.0	13.0	12.0	12.0	12.0	14.0	14.0	14.0
Milk, evaporated															
16-ounce can	11.3	10.8	10.5	11.4	10.9	10.7	13.4	12.8	12.9	10.6	10.0	9.9	11.0	10.6	10.4
Butter.....pound	60.3	54.7	55.9	57.2	52.9	53.3	58.3	55.0	55.8	52.6	48.6	48.4	57.0	53.7	54.6
Oleomargarine (all															
butter substitutes)															
pound	28.7	28.8	28.5	27.0	27.0	26.8	29.2	28.3	28.8	24.6	24.2	24.4	25.4	26.4	25.1
Cheese.....do	40.4	40.0	40.0	37.5	35.9	37.2	38.0	37.6	37.8	40.5	38.7	38.5	40.3	39.4	39.7
Lard.....do	20.5	20.1	19.6	17.2	15.5	15.3	21.7	21.4	21.1	19.3	18.5	18.7	19.0	18.0	18.0
Vegetable lard substi-															
tute.....pound	26.6	26.9	26.4	27.8	26.7	26.7	24.1	23.5	21.7	22.2	21.3	21.2	26.3	25.8	25.8
Eggs, strictly fresh															
dozen	53.1	47.2	54.4	42.7	43.6	47.1	43.3	43.2	50.2	42.9	40.6	44.3	50.2	48.2	53.6
Bread.....pound	7.8	7.8	7.8	7.8	7.7	7.7	9.3	9.0	8.8	7.9	7.6	7.6	8.1	8.2	8.1
Flour.....do	5.6	5.3	5.4	5.1	5.0	5.0	5.3	5.1	5.2	4.1	3.9	3.9	4.9	4.9	5.0
Corn meal.....do	5.7	5.8	5.9	4.4	4.3	4.2	4.8	4.6	4.6	4.5	4.6	4.6	6.1	6.4	6.3
Rollod oats.....do	9.3	8.9	8.8	9.1	9.1	8.9	10.2	10.0	10.0	7.5	7.5	7.6	9.4	9.0	9.1
Corn flakes															
8-ounce package	10.0	9.8	9.8	9.8	10.0	10.2	10.2	9.9	9.8	9.5	9.5	9.7	9.4	9.7	9.7
Wheat cereal															
28-ounce package	25.6	25.9	25.3	26.7	26.3	26.0	27.6	27.3	27.4	24.5	24.6	24.6	25.4	26.3	26.4
Macaroni.....pound	20.9	20.3	20.3	20.4	20.0	20.0	21.8	21.4	21.4	19.4	19.2	19.1	21.6	20.6	20.5
Rice.....do	10.1	10.5	10.5	11.6	11.2	11.1	11.8	11.4	11.0	9.2	8.9	8.9	11.2	11.2	10.6
Beans, navy.....do	12.4	14.9	15.0	14.1	13.8	13.9	12.8	15.7	16.0	12.2	13.5	13.8	12.8	13.7	13.9
Potatoes.....do	2.3	4.4	4.1	2.2	3.6	3.4	4.4	5.2	5.3	1.4	3.5	2.9	1.8	3.8	3.6
Onions.....do	6.0	6.4	5.6	7.0	7.9	6.2	6.7	7.5	7.8	4.6	6.4	4.8	5.5	6.4	5.1
Cabbage.....do	4.9	6.3	5.2	4.6	4.4	4.4	5.4	5.9	6.3	2.1	3.9	4.0	4.0	5.6	5.0
Beans, baked															
No. 2 can	12.4	12.3	11.8	11.8	10.9	10.9	12.2	13.3	13.3	11.7	11.7	11.6	11.5	11.9	11.4
Corn, canned.....do	17.1	16.3	16.5	14.5	13.6	13.6	19.2	17.8	17.6	14.0	14.3	14.2	15.6	15.3	15.5
Peas, canned.....do	17.5	16.9	17.1	14.8	15.3	15.3	22.3	22.0	21.8	15.0	15.2	15.2	15.7	15.7	15.4
Tomatoes, canned															
No. 2 can	13.9	14.6	14.5	11.9	14.0	13.5	11.9	14.0	13.8	11.9	12.9	12.7	11.9	13.9	13.1
Sugar.....pound	7.6	7.2	7.2	7.6	7.2	7.1	7.7	7.1	7.1	7.6	7.3	7.5	7.2	6.8	6.9
Tea.....do	82.2	82.9	82.5	86.2	85.6	85.6	104.8	104.9	105.1	70.0	69.4	69.4	75.0	72.6	72.1
Coffee.....do	51.9	51.7	51.4	49.3	49.3	49.3	58.9	58.5	58.3	50.0	49.6	49.5	49.9	48.4	48.2
Prunes.....do	13.7	15.1	16.2	15.1	16.6	16.6	18.4	18.7	19.0	14.8	16.8	17.2	14.6	15.8	16.9
Raisins.....do	13.6	11.9	12.1	13.1	12.1	11.6	14.2	13.3	13.1	12.2	11.4	11.8	12.5	12.1	12.4
Bananas.....dozen	9.3	9.6	9.7	37.0	36.3	37.5	41.7	35.0	35.0	9.7	10.1	10.6	33.0	35.0	35.0
Oranges.....do	69.7	52.7	54.3	63.8	42.8	45.6	62.4	47.2	45.5	60.1	41.5	38.5	70.7	46.6	45.0

\* Per pound.

# WHOLESALE AND RETAIL PRICES

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TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, SEPTEMBER 15, 1928, AND AUGUST 15 AND SEPTEMBER 15, 1929—Continued

Article	Fall River, Mass.			Houston, Tex.			Indianapolis, Ind.			Jacksonville, Fla.			Kansas City, Mo.		
	1928			1928			1928			1928			1928		
	Sept. 15,	Aug. 15	Sept. 15	Sept. 15,	Aug. 15	Sept. 15	Sept. 15,	Aug. 15	Sept. 15	Sept. 15,	Aug. 15	Sept. 15	Sept. 15,	Aug. 15	Sept. 15
Sirloin steak.....pound..	Cts. 78.4	Cts. 74.1	Cts. 74.8	Cts. 39.3	Cts. 41.4	Cts. 41.4	Cts. 50.3	Cts. 51.1	Cts. 51.1	Cts. 40.8	Cts. 39.8	Cts. 42.5	Cts. 48.3	Cts. 51.7	Cts. 50.3
Round steak.....do.....	60.5	58.5	58.1	38.0	41.1	40.9	48.2	49.7	49.7	35.1	35.8	35.8	43.8	47.1	45.9
Rib roast.....do.....	40.8	40.1	39.7	30.7	30.5	31.4	36.0	35.7	35.9	31.3	32.4	32.3	34.8	36.4	36.0
Chuck roast.....do.....	33.1	33.6	33.5	24.8	25.9	25.6	31.9	33.2	32.9	24.3	26.3	26.3	27.4	29.7	29.6
Plate beef.....do.....	21.0	19.4	19.8	20.8	23.2	22.2	22.0	21.1	21.3	16.2	18.0	17.1	20.0	20.5	21.0
Pork chops.....do.....	41.7	40.5	41.7	37.7	33.6	35.0	45.0	40.5	40.1	34.2	34.0	33.8	44.3	38.5	39.5
Bacon, sliced.....do.....	42.5	38.6	39.3	41.0	41.5	41.2	44.0	41.6	41.6	38.6	38.5	38.0	45.0	43.8	43.9
Ham, sliced.....do.....	52.8	56.7	56.8	48.5	50.9	51.4	56.3	58.2	57.7	49.6	50.3	50.0	54.9	55.0	54.0
Lamb, leg of.....do.....	42.9	43.8	43.7	33.8	32.5	33.3	42.0	46.0	43.3	40.8	41.3	40.0	37.6	37.4	36.7
Hens.....do.....	45.8	47.2	46.9	37.4	36.6	38.1	40.0	43.6	43.6	33.1	35.1	36.4	33.1	35.0	34.4
Salmon, canned, red.....pound..	35.4	33.0	32.5	31.8	29.6	29.4	34.0	32.9	33.1	33.5	30.2	30.1	35.7	34.8	35.0
Milk, fresh.....quart..	14.7	15.0	15.0	15.0	15.0	15.0	12.0	12.0	12.0	20.3	20.3	20.3	13.0	13.0	13.0
Milk, evaporated.....16-ounce can..	12.5	12.0	12.0	11.1	10.4	10.3	10.8	10.2	10.1	11.5	10.9	10.6	11.6	10.8	10.4
Butter.....pound..	57.7	55.3	55.6	56.1	52.5	54.4	57.3	53.2	54.8	57.4	55.0	54.8	55.3	50.9	53.2
Oleomargarine (all butter substitutes).....pound..	26.0	27.1	27.1	25.2	25.5	25.2	29.2	28.5	28.5	30.0	28.7	28.4	25.7	25.0	25.5
Cheese.....do.....	41.9	40.5	41.1	33.9	32.4	32.0	41.0	40.3	40.8	35.6	35.0	34.5	38.0	37.4	38.6
Lard.....do.....	19.3	17.5	17.6	19.5	21.3	21.1	18.0	16.5	17.0	19.2	18.9	19.2	19.5	18.5	18.5
Vegetable lard substitute.....pound..	27.1	27.1	26.7	15.7	16.5	16.6	26.6	26.9	26.9	22.2	22.2	22.3	25.8	25.9	26.1
Eggs, strictly fresh.....dozen..	67.5	66.8	71.8	43.3	40.8	45.3	44.3	43.7	46.7	56.2	49.1	51.1	42.6	42.4	44.7
Bread.....pound..	8.8	8.2	8.3	8.2	8.3	8.3	7.9	8.0	8.0	10.2	10.0	10.0	9.7	9.2	9.2
Flour.....do.....	5.8	5.6	5.6	5.0	4.9	5.0	5.3	5.1	5.2	6.3	5.8	6.1	4.9	5.0	5.0
Corn meal.....do.....	7.1	6.4	6.5	4.2	4.5	4.5	4.1	4.3	4.3	4.4	4.3	4.2	5.4	5.4	5.4
Rolled oats.....do.....	9.7	9.4	9.4	8.5	8.4	8.4	8.9	8.7	8.9	9.4	9.3	9.2	9.2	9.2	9.2
Corn flakes.....8-ounce package..	9.8	9.7	9.7	8.6	9.0	8.9	9.3	9.5	9.5	9.5	9.7	9.3	9.7	9.7	9.7
Wheat cereal.....28-ounce package..	25.3	24.4	24.8	25.2	25.3	25.3	25.7	25.9	25.3	25.7	25.2	25.2	27.2	27.1	27.2
Macaroni.....pound..	23.6	23.8	23.5	18.2	18.2	18.2	19.3	18.3	18.7	19.7	19.3	19.3	20.2	20.1	20.0
Rice.....do.....	11.2	10.7	10.8	7.3	7.2	7.5	11.3	10.4	10.4	7.4	7.6	7.4	9.7	9.8	9.8
Beans, navy.....do.....	12.7	13.8	13.8	12.5	16.2	16.0	14.2	14.5	14.5	12.4	15.1	15.1	13.1	14.7	15.0
Potatoes.....do.....	1.8	4.1	3.8	3.7	5.1	5.2	2.1	4.2	4.1	3.2	4.9	4.8	1.4	3.4	3.8
Onions.....do.....	7.2	5.9	5.2	4.9	6.0	5.7	6.9	7.2	6.6	7.2	8.7	7.9	6.0	6.9	7.1
Cabbage.....do.....	6.1	6.8	5.9	4.8	7.0	6.8	3.8	4.7	5.1	4.7	6.9	5.4	3.6	6.9	5.7
Beans, baked.....No. 2 can..	12.4	12.8	12.6	11.1	10.7	10.7	10.2	10.8	11.1	10.5	10.6	10.6	12.1	13.2	12.8
Corn, canned.....do.....	17.3	16.2	16.4	14.3	13.7	14.5	14.0	14.0	14.0	17.2	17.0	17.0	14.7	15.5	15.5
Peas, canned.....do.....	19.6	18.1	18.1	14.7	14.9	14.9	14.5	15.0	15.0	16.4	17.8	18.0	15.2	16.3	16.5
Tomatoes, canned.....No. 2 can..	12.3	14.3	13.4	9.8	12.5	11.5	12.3	14.6	14.2	9.9	11.6	10.5	11.1	14.7	13.5
Sugar.....pound..	7.0	6.4	6.4	6.9	6.6	6.6	7.5	7.0	7.2	7.3	6.7	6.9	7.5	7.2	7.1
Tea.....do.....	59.2	59.1	59.5	84.4	86.7	85.7	86.3	89.8	91.8	96.7	97.6	97.6	93.4	91.0	90.9
Coffee.....do.....	50.5	49.8	49.8	43.5	44.6	44.2	48.2	48.1	49.3	47.4	47.1	47.1	52.4	52.1	52.0
Prunes.....do.....	13.3	13.8	15.2	13.3	14.7	15.9	17.0	17.5	18.7	15.5	14.2	14.5	14.5	15.8	17.7
Raisins.....do.....	12.8	11.9	12.1	11.7	10.4	10.6	14.5	14.2	13.9	14.1	12.2	12.0	12.9	12.8	13.5
Bananas.....dozen..	8.8	8.6	8.6	26.2	24.6	25.4	31.7	30.6	30.0	27.1	25.7	26.4	10.3	10.0	10.5
Oranges.....do.....	72.8	47.0	44.8	51.8	34.9	34.1	62.6	43.8	45.8	102.5	46.7	50.0	63.7	38.1	35.6

<sup>1</sup> Per pound.

<sup>2</sup> The steak for which prices are here quoted is called "rump" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, SEPTEMBER 15, 1928, AND AUGUST 15 AND SEPTEMBER 15, 1929—Continued

Article	Little Rock, Ark.			Los Angeles, Calif.			Louisville, Ky.			Manchester, N. H.			Memphis, Tenn.		
	1928			1928			1928			1928			1928		
	Sept. 15, 1928	Aug. 15	Sept. 15	Sept. 15, 1928	Aug. 15	Sept. 15	Sept. 15, 1928	Aug. 15	Sept. 15	Sept. 15, 1928	Aug. 15	Sept. 15	Sept. 15, 1928	Aug. 15	Sept. 15
Sirloin steak.....pound	Cts. 45.8	Cts. 48.3	Cts. 48.3	Cts. 45.4	Cts. 46.5	Cts. 47.2	Cts. 46.5	Cts. 47.7	Cts. 45.9	Cts. 69.9	Cts. 67.3	Cts. 65.6	Cts. 49.0	Cts. 48.9	Cts. 49.1
Round steak.....do	40.2	44.7	44.5	37.3	38.8	39.1	42.3	43.2	41.4	56.6	54.8	54.4	44.8	45.6	45.3
Rib roast.....do	36.1	37.7	38.3	35.6	35.3	35.3	33.8	34.8	33.6	37.1	36.0	34.8	34.7	35.9	35.1
Chuck roast.....do	28.1	30.2	30.3	26.6	26.5	27.3	27.0	28.2	27.5	32.4	31.2	30.4	29.0	30.0	29.5
Plate beef.....do	21.2	23.6	23.9	19.1	16.8	18.2	21.7	22.8	22.5	24.0	25.0	22.5	22.7	21.8	22.0
Pork chops.....do	38.0	35.5	36.3	50.3	47.0	47.2	43.6	36.2	36.9	43.3	39.5	40.2	38.2	36.0	36.1
Bacon, sliced.....do	46.0	46.4	45.2	53.2	53.0	52.3	45.6	43.7	43.7	39.1	37.5	37.2	37.7	36.3	36.1
Ham, sliced.....do	53.5	53.9	54.0	72.4	70.7	70.3	53.5	50.9	51.4	48.1	48.0	48.9	53.5	56.4	54.6
Lamb, leg of.....do	42.8	39.2	40.8	38.2	39.3	38.3	38.6	37.7	36.0	40.4	40.5	39.9	38.0	38.5	39.4
Hens.....do	30.3	30.8	31.1	44.7	46.7	45.7	35.4	37.3	37.7	42.9	44.5	43.9	31.3	34.1	34.2
Salmon, canned, red.....pound	33.5	30.5	30.9	31.1	29.9	30.1	33.3	30.0	30.6	33.0	30.5	29.9	33.4	35.6	35.6
Milk, fresh.....quart	14.0	15.0	15.0	15.0	15.0	15.0	12.8	13.0	13.0	15.0	15.0	15.0	15.0	15.0	15.0
Milk, evaporated.....16-ounce can	11.8	11.6	11.4	9.9	10.0	10.0	11.9	11.3	11.1	12.7	11.9	12.0	11.4	10.9	10.7
Butter.....pound	55.5	53.8	54.2	60.0	55.1	57.8	58.9	53.4	54.5	59.0	55.0	55.3	56.6	53.5	53.4
Oleomargarine (all butter substitutes).....pound	26.8	25.3	25.3	25.3	25.0	24.7	27.5	25.6	25.6	28.1	27.0	27.0	24.4	26.5	25.9
Cheese.....do	38.4	36.8	36.8	38.6	38.4	38.5	38.5	37.3	38.0	38.9	38.2	38.1	36.4	35.0	34.8
Lard.....do	20.5	19.7	19.5	20.8	19.6	19.3	19.1	17.9	18.0	18.4	17.8	18.1	17.1	15.9	16.1
Vegetable lard substitute.....pound	20.3	20.8	20.9	24.1	24.4	24.4	27.3	26.3	26.2	25.9	26.3	26.1	21.0	22.1	22.1
Eggs, strictly fresh.....dozen	44.4	44.5	49.0	51.5	50.3	56.4	43.1	41.7	46.9	64.6	62.1	68.7	41.4	42.5	44.3
Bread.....pound	9.3	9.6	9.6	8.7	8.6	8.6	9.1	9.4	9.4	8.7	8.1	8.1	9.5	9.4	9.2
Flour.....do	6.0	5.9	5.9	5.1	4.9	4.9	6.1	6.1	6.2	5.4	5.4	5.4	6.0	6.0	6.0
Corn meal.....do	4.2	4.2	4.0	5.8	5.7	5.7	4.2	4.1	4.1	5.3	5.3	5.5	3.8	4.3	4.0
Rolled oats.....do	10.3	10.4	10.3	10.0	10.0	10.0	8.6	8.6	8.7	8.9	8.4	8.3	8.8	9.0	8.8
Corn flakes.....do	9.8	9.7	9.8	9.4	9.4	9.5	9.5	9.5	9.5	9.3	9.2	9.2	9.8	9.7	9.8
Wheat cereal.....8-ounce package	26.8	27.1	27.3	25.0	25.0	25.0	27.4	27.2	27.2	25.6	25.6	25.4	25.8	25.8	25.8
Macaroni.....pound	20.5	20.5	20.2	18.2	17.8	17.9	18.9	18.7	18.4	23.1	23.1	23.3	19.7	19.9	19.8
Rice.....do	8.0	8.1	8.3	10.1	9.6	9.5	10.9	10.1	10.0	9.1	8.7	9.0	7.9	8.5	8.5
Beans, navy.....do	13.0	15.0	15.3	11.8	14.2	14.9	13.3	14.5	14.5	12.9	13.6	13.8	12.5	14.7	14.2
Potatoes.....do	2.4	3.5	4.4	2.6	3.9	3.9	1.7	3.6	4.2	1.9	4.4	3.5	2.9	4.7	4.7
Onions.....do	6.3	7.4	6.9	4.7	4.8	4.5	5.1	5.3	5.4	5.8	6.3	5.4	5.0	5.5	5.5
Cabbage.....do	4.4	6.8	6.0	4.5	4.3	4.9	3.6	5.8	5.3	5.0	4.5	4.5	3.6	6.0	4.8
Beans, baked.....No. 2 can	11.1	12.3	11.8	11.6	11.8	11.7	11.0	11.2	11.3	13.4	13.6	13.7	11.2	12.0	11.5
Corn, canned.....do	15.8	16.8	16.8	15.8	15.9	15.6	15.3	15.0	14.8	16.4	16.4	16.4	14.4	14.7	14.5
Peas, canned.....do	16.8	18.2	18.2	17.3	16.5	16.0	15.5	15.1	15.1	17.8	17.6	17.6	15.3	15.7	15.7
Tomatoes, canned.....No. 2 can	10.0	13.4	13.5	14.8	15.6	16.0	10.5	14.6	12.6	11.7	14.5	14.1	9.8	12.0	11.3
Sugar.....pound	7.6	7.3	7.4	6.8	6.3	6.3	7.4	7.2	7.2	6.8	6.9	7.1	6.7	6.9	6.9
Tea.....do	105.3	108.1	106.7	75.9	73.4	73.4	92.3	90.3	90.3	65.1	63.6	63.6	97.6	95.6	95.6
Coffee.....do	54.3	53.8	53.8	54.0	53.6	53.5	51.5	48.5	49.4	51.1	50.5	50.6	49.8	48.3	48.5
Prunes.....do	15.0	16.0	16.1	12.5	14.9	16.2	16.3	15.9	16.3	12.9	14.2	15.5	12.9	14.5	14.5
Raisins.....do	14.2	14.3	14.2	10.6	10.6	10.7	14.0	12.0	12.7	13.0	11.0	11.8	14.5	12.9	12.5
Bananas.....dozen	<sup>1</sup> 8.7 <sup>2</sup> 8.9 <sup>3</sup> 8.2	<sup>1</sup> 8.9 <sup>2</sup> 8.9 <sup>3</sup> 8.9	<sup>1</sup> 8.6 <sup>2</sup> 8.6 <sup>3</sup> 9.4	<sup>1</sup> 9.4 <sup>2</sup> 9.9 <sup>3</sup> 8.8	<sup>1</sup> 7.8 <sup>2</sup> 7.5 <sup>3</sup> 8.7	<sup>1</sup> 8.0 <sup>2</sup> 8.0 <sup>3</sup> 8.0	<sup>1</sup> 8.0 <sup>2</sup> 8.0 <sup>3</sup> 8.0	<sup>1</sup> 8.0 <sup>2</sup> 8.0 <sup>3</sup> 8.0	<sup>1</sup> 8.0 <sup>2</sup> 8.0 <sup>3</sup> 8.0	<sup>1</sup> 8.0 <sup>2</sup> 8.0 <sup>3</sup> 8.0	<sup>1</sup> 8.0 <sup>2</sup> 8.0 <sup>3</sup> 8.0	<sup>1</sup> 8.0 <sup>2</sup> 8.0 <sup>3</sup> 8.0	<sup>1</sup> 8.0 <sup>2</sup> 8.0 <sup>3</sup> 8.0	<sup>1</sup> 8.0 <sup>2</sup> 8.0 <sup>3</sup> 8.0	<sup>1</sup> 8.0 <sup>2</sup> 8.0 <sup>3</sup> 8.0
Oranges.....do	59.9	53.4	50.0	59.1	43.6	45.7	57.1	41.4	41.8	66.4	45.4	48.0	61.7	43.2	33.8

<sup>1</sup> The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

<sup>2</sup> Per pound.

<sup>3</sup> No. 2½ can.



# WHOLESALE AND RETAIL PRICES

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TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, SEPTEMBER 15, 1928, AND AUGUST 15 AND SEPTEMBER 15, 1929—Continued

Article	Milwaukee, Wis.			Minneapolis, Minn.			Mobile, Ala.			Newark, N. J.			New Haven, Conn.		
	1929			1929			1929			1929			1929		
	Sept. 15, 1928	Aug. 15	Sept. 15	Sept. 15, 1928	Aug. 15	Sept. 15	Sept. 15, 1928	Aug. 15	Sept. 15	Sept. 15, 1928	Aug. 15	Sept. 15	Sept. 15, 1928	Aug. 15	Sept. 15
Sirloin steak.....pound	49.7	50.1	49.1	44.3	44.5	44.1	41.7	46.0	44.8	58.5	56.8	55.3	67.7	65.5	66.5
Round steak.....do	44.6	45.6	44.8	38.8	40.6	39.9	41.1	43.5	42.9	55.5	53.6	52.2	55.6	55.7	55.2
Rib roast.....do	35.0	34.8	34.5	33.3	35.5	35.0	32.8	35.4	35.4	44.2	41.4	41.7	43.0	44.2	44.1
Chuck roast.....do	32.6	33.0	32.5	29.2	30.9	30.5	28.9	28.1	29.4	36.0	33.8	34.7	35.8	37.4	37.1
Plate beef.....do	20.9	21.1	21.2	18.3	19.3	19.3	21.4	23.1	22.3	20.6	19.3	19.8	20.1	19.0	20.9
Pork chops.....do	45.5	40.5	40.5	43.7	39.4	40.1	38.3	36.9	36.9	47.8	42.3	41.6	47.0	42.4	43.6
Bacon, sliced.....do	46.8	45.6	45.4	47.6	47.1	47.3	40.8	40.0	39.8	44.5	44.2	44.4	47.6	45.5	46.2
Ham, sliced.....do	51.3	50.9	50.7	52.9	54.7	53.7	52.3	51.9	50.0	58.6	58.1	57.5	62.0	61.1	62.1
Lamb, leg of.....do	41.0	40.9	39.8	36.2	36.8	36.1	41.7	45.0	44.0	41.8	40.7	40.1	41.5	42.7	42.5
Hens.....do	36.0	36.6	36.2	34.8	36.3	36.8	32.4	34.6	34.0	39.3	41.2	41.0	42.6	44.5	44.0
Salmon, canned, red pound	32.8	35.4	35.1	36.6	35.1	35.7	34.9	29.3	30.6	31.4	29.3	29.6	34.4	32.1	32.7
Milk, fresh.....quart	11.0	11.0	11.0	12.0	12.0	12.0	18.0	18.0	18.0	16.0	16.0	16.0	16.0	16.0	17.0
Milk, evaporated 16-ounce can	11.1	10.7	10.6	11.6	11.6	11.2	11.3	10.4	10.1	10.8	10.6	10.4	11.9	11.4	11.3
Butter.....pound	55.8	50.6	52.1	54.8	50.7	51.6	56.2	55.1	55.6	59.3	55.0	55.8	56.8	54.5	54.3
Oleomargarine (all butter substitutes) pound	26.5	26.4	26.4	25.7	25.5	25.6	29.9	27.5	27.6	29.3	30.9	30.8	28.8	28.9	29.2
Cheese.....do	37.6	36.5	36.3	37.5	37.4	37.9	36.8	35.0	35.0	41.5	41.5	41.5	40.9	41.8	42.4
Lard.....do	19.6	18.4	18.5	19.6	19.2	19.3	18.7	18.3	18.3	18.8	18.7	18.7	19.5	19.0	19.1
Vegetable lard substitute.....pound	26.4	26.6	26.6	27.0	26.4	26.5	20.9	19.7	19.3	25.4	25.5	25.0	25.9	25.4	25.4
Eggs, strictly fresh dozen	43.7	41.5	45.1	40.1	39.7	44.2	44.4	41.3	45.8	60.5	57.4	61.9	70.6	63.7	71.3
Bread.....pound	8.7	8.7	8.7	8.9	9.0	8.9	10.1	10.1	10.1	9.1	8.8	8.9	9.0	8.8	8.8
Flour.....do	4.6	4.7	4.8	4.8	5.0	5.1	6.3	5.8	5.8	4.9	5.1	5.2	5.4	5.4	5.3
Corn meal.....do	5.8	6.2	6.3	5.5	5.4	5.6	4.1	4.2	4.0	6.9	6.5	6.5	6.9	6.9	6.8
Rollod oats.....do	8.3	8.1	8.1	7.8	7.9	7.9	8.4	8.2	8.4	8.3	8.8	8.7	9.3	9.4	9.4
Corn flakes 8-ounce package	9.3	9.4	9.5	9.9	9.9	9.7	9.4	9.1	9.0	8.6	8.9	8.9	10.0	9.9	10.0
Wheat cereal 28-ounce package	24.7	24.9	24.9	25.4	25.4	25.2	25.0	24.2	25.0	24.8	26.6	26.6	24.6	24.4	24.5
Macaroni.....pound	17.9	17.8	18.0	17.7	17.9	17.7	21.2	21.2	20.9	21.2	21.0	20.8	22.6	22.1	22.0
Rice.....do	10.1	9.9	9.9	9.5	10.2	10.2	9.0	8.4	8.2	9.7	9.6	9.6	10.4	10.2	10.3
Beans, navy.....do	13.5	14.2	14.3	13.6	14.8	14.8	11.6	14.4	14.3	12.7	14.7	14.7	12.0	14.2	14.2
Potatoes.....do	1.7	3.9	3.5	1.0	2.6	3.0	3.0	4.7	4.5	2.3	4.4	4.2	2.2	4.1	3.9
Onions.....do	5.3	6.3	5.9	5.2	7.4	5.8	5.5	5.3	5.4	6.9	6.8	5.6	6.6	6.2	6.6
Cabbage.....do	3.2	4.6	4.2	2.1	4.5	4.5	4.2	5.6	5.1	5.0	7.8	6.0	5.2	7.2	7.0
Beans, baked No. 2 can	11.5	11.4	11.3	12.2	12.1	12.4	10.5	10.8	10.7	10.6	10.9	10.9	11.9	12.3	12.3
Corn, canned.....do	16.2	16.2	16.0	14.5	14.8	14.8	15.8	14.3	14.5	17.1	16.5	16.1	18.0	18.3	18.2
Peas, canned.....do	15.9	15.9	15.8	14.9	15.4	15.4	15.9	15.6	15.6	17.3	17.0	16.7	21.6	20.7	20.9
Tomatoes, canned No. 2 can	13.0	14.6	14.7	12.9	14.3	14.3	10.1	12.9	11.8	10.5	12.4	11.4	13.0	14.8	14.3
Sugar.....pound	6.8	6.3	6.4	7.1	6.6	6.7	7.0	6.7	6.6	6.5	6.3	6.4	6.9	6.7	6.8
Tea.....do	68.8	70.5	70.5	61.5	68.1	68.8	81.1	79.7	79.7	59.0	57.9	57.9	60.8	59.9	59.1
Coffee.....do	45.3	46.4	46.4	53.2	52.4	52.5	48.6	50.0	48.9	49.2	49.2	49.0	51.5	50.5	50.5
Prunes.....do	13.8	15.3	16.3	13.9	15.5	17.3	15.1	13.0	13.3	12.9	15.1	15.1	13.7	15.0	15.3
Raisins.....do	13.2	12.5	12.8	13.1	11.8	12.5	13.6	9.6	10.8	13.0	11.6	11.6	13.5	12.2	12.4
Bananas.....dozen	9.2	9.2	9.2	9.6	10.0	10.3	23.6	21.0	22.0	37.0	37.5	36.3	33.5	33.3	33.3
Oranges.....do	66.3	39.9	43.7	67.7	41.6	40.4	55.2	43.2	34.9	72.5	44.7	55.7	73.1	51.2	49.9

<sup>1</sup> Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, SEPTEMBER 15, 1928, AND AUGUST 15 AND SEPTEMBER 15, 1929—Continued

Article	New Orleans, La.			New York, N. Y.			Norfolk, Va.			Omaha, Nebr.			Peoria, Ill.		
	1928			1929			1928			1928			1928		
	Sept. 15, 1928	Aug. 15	Sept. 15	Sept. 15, 1928	Aug. 15	Sept. 15	Sept. 15, 1928	Aug. 15	Sept. 15	Sept. 15, 1928	Aug. 15	Sept. 15	Sept. 15, 1928	Aug. 15	Sept. 15
Sirloin steak.....pound...	Cts. 44.7	Cts. 46.0	Cts. 45.2	Cts. 57.1	Cts. 56.1	Cts. 55.2	Cts. 49.2	Cts. 50.8	Cts. 50.3	Cts. 50.4	Cts. 48.1	Cts. 47.6	Cts. 42.1	Cts. 43.8	Cts. 42.8
Round steak.....do.....	38.9	41.5	40.5	53.6	54.4	52.9	44.4	44.6	44.8	47.9	47.0	46.2	41.3	43.5	42.3
Rib roast.....do.....	36.3	39.0	38.3	46.4	44.3	44.4	40.0	40.0	40.0	33.9	33.7	33.9	32.5	32.2	33.5
Chuck roast.....do.....	26.3	27.2	27.1	32.1	32.0	32.0	28.3	30.9	29.8	30.9	31.0	30.4	29.6	29.9	29.3
Plate beef.....do.....	21.3	22.8	22.6	26.0	26.0	26.5	19.8	21.9	21.9	18.7	19.7	19.4	19.6	20.0	19.9
Pork chops.....do.....	41.6	38.9	39.4	47.4	43.1	43.4	37.2	37.7	38.5	42.6	36.7	37.6	39.4	35.6	36.1
Bacon, sliced.....do.....	43.8	45.0	44.7	47.3	46.3	46.3	42.5	41.3	42.8	47.7	45.6	44.4	45.0	44.1	44.1
Ham, sliced.....do.....	52.8	55.1	55.7	60.4	60.3	59.0	47.0	46.5	46.5	55.1	54.7	55.6	52.5	52.3	51.4
Lamb, leg of.....do.....	40.6	40.0	39.3	40.4	38.6	38.0	44.7	42.5	42.8	39.0	38.1	37.4	42.9	44.7	44.3
Hens.....do.....	37.1	38.1	39.9	39.8	41.4	41.4	36.8	37.1	37.5	32.4	33.4	33.7	32.9	37.3	34.9
Salmon, canned, red.....pound...	36.1	34.8	35.1	31.6	31.0	31.2	30.2	32.6	32.8	35.3	34.3	34.0	35.1	33.0	32.7
Milk, fresh.....quart....	14.0	14.0	14.0	16.0	16.0	16.0	18.0	18.0	18.0	11.3	11.3	11.3	13.0	13.0	13.0
Milk, evaporated.....16-ounce can...	10.8	10.1	10.0	10.9	10.6	10.3	11.4	10.7	10.4	11.4	10.9	10.3	11.1	10.5	10.2
Butter.....pound.....	56.9	55.8	56.5	57.7	54.4	56.2	58.9	57.6	58.0	53.3	49.0	49.8	53.8	48.9	50.0
Oleomargarine (all butter substitutes).....pound...	28.4	28.3	28.3	28.2	28.1	28.2	25.0	27.1	26.9	25.8	26.2	26.0	27.6	27.5	27.5
Cheese.....do.....	39.3	36.8	36.9	41.1	40.9	41.2	35.4	34.8	35.3	37.3	35.3	35.8	37.5	36.4	36.4
Lard.....do.....	18.3	18.4	18.7	20.3	19.5	19.6	18.6	18.1	18.2	20.3	19.0	19.4	19.0	18.0	18.4
Vegetable lard substitute.....pound...	19.5	20.1	20.5	25.8	26.1	25.6	21.6	21.8	21.8	25.7	26.1	25.5	27.6	27.8	27.5
Eggs, strictly fresh.....dozen...	43.7	43.0	45.6	62.0	58.1	63.3	51.5	47.9	53.7	39.0	37.5	41.8	40.9	39.5	43.8
Bread.....pound.....	8.9	8.9	8.9	8.7	8.7	8.7	9.9	9.4	9.3	9.6	9.1	9.2	10.0	10.0	10.0
Flour.....do.....	6.9	6.5	6.6	5.0	5.3	5.2	5.5	5.4	5.4	4.4	4.3	4.4	5.0	4.9	4.9
Corn meal.....do.....	4.2	4.1	4.1	6.8	6.8	6.7	4.7	4.7	4.7	4.7	4.8	4.8	4.8	4.9	4.9
Rolled oats.....do.....	8.7	8.5	8.7	8.6	8.6	8.7	8.8	8.7	8.7	9.9	9.8	9.9	8.9	8.6	8.6
Corn flakes.....8-ounce package...	9.5	9.5	9.5	8.8	9.0	9.0	9.7	9.6	9.6	10.1	9.8	9.9	9.6	9.5	9.5
Wheat cereal.....28-ounce package...	24.6	24.8	24.8	24.4	24.3	24.0	25.4	24.8	24.9	28.2	27.8	27.9	26.2	25.7	25.7
Macaroni.....pound.....	10.6	11.3	11.2	20.8	20.4	20.4	19.0	19.2	19.2	21.2	21.7	21.4	18.8	18.7	18.7
Rice.....do.....	8.8	8.6	8.8	9.9	9.7	9.7	11.3	10.1	10.3	11.3	10.1	10.4	10.4	9.5	9.3
Beans, navy.....do.....	11.3	13.6	13.8	13.2	14.9	14.8	12.0	14.4	14.2	13.5	14.0	13.9	13.8	14.6	14.3
Potatoes.....do.....	2.9	4.5	4.5	2.4	4.3	4.3	1.9	4.2	4.6	1.5	2.1	3.1	1.7	3.4	3.5
Onions.....do.....	4.8	4.7	4.7	6.5	7.0	6.2	6.9	7.5	6.2	4.9	6.3	5.5	5.9	7.1	6.4
Cabbage.....do.....	4.7	5.4	5.6	4.6	7.3	5.9	4.5	5.9	5.1	2.5	3.5	4.9	3.0	3.4	4.4
Beans, baked.....No. 2 can...	10.5	11.1	11.0	11.3	11.7	11.7	10.4	10.5	10.4	13.3	13.4	13.3	10.1	10.7	10.2
Corn, canned.....do.....	15.4	15.5	15.8	15.4	15.0	15.0	14.6	14.4	14.9	16.2	15.3	16.3	15.0	13.9	13.9
Peas, canned.....do.....	16.5	16.0	16.0	15.3	15.4	15.2	18.2	16.9	17.5	15.8	15.2	15.1	16.8	17.1	17.1
Tomatoes, canned.....No. 2 can...	10.4	13.6	12.7	11.2	13.4	11.6	9.9	13.5	10.6	13.1	15.2	14.5	12.2	14.4	13.7
Sugar.....pound.....	6.5	5.9	6.0	6.3	6.0	6.1	6.9	6.5	6.5	7.2	6.8	6.7	7.8	7.0	7.0
Tea.....do.....	81.8	82.1	82.6	67.8	67.6	68.2	94.7	93.3	93.3	77.2	80.0	80.0	66.0	64.2	63.7
Coffee.....do.....	35.2	35.9	35.7	45.7	45.3	45.0	50.5	49.5	48.6	53.7	53.6	53.6	49.5	47.9	48.1
Prunes.....do.....	13.7	13.9	15.6	12.6	14.3	15.8	13.1	13.7	14.3	14.9	15.8	17.0	15.4	16.3	16.7
Raisins.....do.....	12.1	10.1	10.1	12.9	11.9	12.1	13.7	12.4	11.7	14.0	13.6	13.2	14.0	12.7	12.7
Bananas.....dozen.....	17.1	16.3	16.3	38.3	35.5	35.8	33.0	33.5	31.1	29.8	29.2	29.6	28.7	29.3	29.7
Oranges.....do.....	59.0	46.8	46.3	78.3	59.8	57.4	75.8	49.1	53.1	57.3	36.9	37.4	58.8	44.2	39.0

\* Per pound.

# WHOLESALE AND RETAIL PRICES

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TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, SEPTEMBER 15, 1928, AND AUGUST 15 AND SEPTEMBER 15, 1929—Continued

Article	Philadelphia, Pa.			Pittsburgh, Pa.			Portland, Me.			Portland, Oreg.		
	Sept. 15, 1928	1929		Sept. 15, 1928	1929		Sept. 15, 1928	1929		Sept. 15, 1928	1929	
		Aug. 15	Sept. 15		Aug. 15	Sept. 15		Aug. 15	Sept. 15		Aug. 15	Sept. 15
Sirloin steak.....pound..	168.1	168.9	165.5	59.2	58.7	58.2	174.4	176.8	175.8	35.9	38.9	38.3
Round steak.....do.....	54.4	55.8	51.7	51.0	50.7	49.8	56.6	62.1	58.6	33.9	37.6	36.6
Rib roast.....do.....	43.7	44.4	43.3	42.8	42.8	41.5	38.0	39.2	39.9	29.9	31.3	31.0
Chick roast.....do.....	37.3	36.6	36.3	36.1	34.9	33.6	28.4	30.6	30.0	24.4	26.3	25.9
Plate beef.....do.....	19.9	20.0	19.4	21.3	21.0	20.3	26.9	27.8	27.0	18.8	20.4	20.2
Pork chops.....do.....	50.0	46.4	45.0	49.1	43.1	43.5	45.7	40.9	43.5	41.9	39.7	39.1
Bacon, sliced.....do.....	44.3	43.9	43.2	50.1	49.7	48.5	41.8	39.2	39.5	51.3	51.9	51.9
Ham, sliced.....do.....	59.9	61.8	60.3	62.4	61.9	61.2	55.5	54.7	56.5	55.9	57.8	56.9
Lamb, leg of.....do.....	43.0	43.4	42.3	42.2	44.1	43.6	42.5	43.2	40.8	36.0	35.9	35.3
Hens.....do.....	42.0	42.7	42.4	45.9	48.6	48.3	42.2	44.4	43.8	34.0	37.3	37.0
Salmon, canned, red.....do.....	30.8	28.4	28.5	31.5	29.8	30.1	32.6	30.1	30.1	31.3	31.7	33.0
Milk, fresh.....quart.....	13.0	13.0	14.0	14.0	14.0	14.0	15.0	15.0	15.0	12.0	12.0	12.0
Milk, evaporated.....16-ounce can.....	11.5	10.9	10.8	10.8	10.4	10.3	12.5	11.7	11.4	10.0	10.1	10.1
Butter.....pound.....	61.2	56.7	57.4	59.7	55.6	56.9	59.2	56.3	56.3	58.9	53.6	56.8
Oleomargarine (all butter substitutes).....pound.....	28.8	28.4	28.5	28.5	27.8	27.7	26.6	26.9	26.4	26.2	26.2	26.2
Cheese.....do.....	42.8	42.8	42.7	41.7	41.5	41.5	39.8	39.1	38.8	38.5	38.3	38.3
Lard.....do.....	19.2	18.1	18.2	19.4	18.0	18.2	18.7	17.5	17.9	19.9	19.8	19.5
Vegetable lard substitute.....do.....	24.9	25.1	24.9	27.7	26.7	27.3	26.2	25.8	25.7	28.4	28.4	28.6
Eggs, strictly fresh.....dozen.....	54.8	51.1	56.7	52.7	50.5	56.1	67.4	66.3	68.8	47.7	43.5	47.5
Bread.....pound.....	8.6	8.2	8.3	9.1	8.9	8.9	10.1	8.9	9.0	9.3	9.3	9.3
Flour.....do.....	5.1	4.9	4.9	4.8	5.1	5.1	5.4	5.5	5.4	4.9	4.8	4.9
Corn meal.....do.....	5.1	5.2	5.3	6.0	6.3	6.2	5.1	5.3	5.3	5.8	5.8	6.1
Rolled oats.....do.....	8.3	8.2	8.3	9.1	9.1	9.0	8.0	7.6	7.6	10.5	10.5	10.5
Corn flakes.....8-ounce package.....	8.8	8.6	8.6	9.6	9.7	9.6	9.4	9.6	9.8	9.5	9.6	9.6
Wheat cereal.....28-ounce package.....	25.3	24.6	24.4	24.6	24.9	25.1	25.6	25.8	25.6	26.8	26.8	26.8
Macaroni.....pound.....	20.5	20.3	20.6	22.7	22.9	22.7	23.2	23.1	23.4	18.6	18.1	18.0
Rice.....do.....	10.5	10.1	10.1	11.1	11.1	11.1	11.3	11.3	11.1	10.1	9.9	10.1
Beans, navy.....do.....	11.4	14.9	15.3	12.5	14.3	14.8	12.7	14.2	14.6	12.8	15.5	15.0
Potatoes.....do.....	2.3	4.6	4.5	2.1	4.0	3.9	2.0	4.1	3.5	2.2	3.7	3.4
Onions.....do.....	6.0	5.9	4.7	6.4	7.3	6.2	5.7	6.0	4.8	4.2	4.3	4.0
Cabbage.....do.....	5.8	7.6	5.1	4.6	6.5	5.7	4.1	5.4	3.8	4.3	3.3	3.3
Beans, baked.....No. 2 can.....	11.4	10.9	11.2	12.8	13.1	13.2	15.2	15.7	15.7	12.3	13.5	13.5
Corn, canned.....do.....	15.2	14.8	14.6	16.2	16.0	16.1	14.1	14.4	14.3	17.9	18.3	18.8
Peas, canned.....do.....	15.6	15.1	14.8	17.1	16.7	16.7	17.4	18.0	17.9	17.0	17.3	17.3
Tomatoes, canned.....do.....	11.7	13.8	12.7	11.8	14.9	14.4	11.7	13.1	13.3	15.6	16.3	15.7
Sugar.....pound.....	6.6	5.9	6.1	7.2	6.7	6.8	6.9	6.4	6.5	7.0	6.6	6.9
Tea.....do.....	71.4	72.0	72.3	82.1	83.0	83.0	62.2	61.5	61.5	81.1	77.4	77.4
Coffee.....do.....	43.9	44.0	43.8	49.0	49.2	50.0	53.1	52.8	52.8	53.3	52.9	52.9
Prunes.....do.....	12.2	13.1	13.4	13.8	15.0	16.2	11.9	13.5	14.3	11.1	14.6	15.1
Raisins.....do.....	12.3	11.0	11.5	12.8	12.0	12.2	12.1	10.8	11.3	12.2	11.5	11.5
Bananas.....dozen.....	28.8	29.2	28.9	36.4	35.4	36.5	10.1	10.3	10.1	10.3	10.2	10.4
Oranges.....do.....	66.8	47.7	41.6	67.5	47.9	49.2	77.5	55.1	52.2	59.2	35.0	31.0

<sup>1</sup> The steak for which prices are here quoted is called "sirloin" in this city, but in most other cities included in this report it would be known as "porterhouse" steak.

<sup>2</sup> Per pound.

<sup>3</sup> No. 2½ can.



TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, SEPTEMBER 15, 1928, AND AUGUST 15 AND SEPTEMBER 15, 1929—Continued

Article	Providence, R.I.			Richmond, Va.			Rochester, N.Y.			St. Louis, Mo.		
	Sept. 15, 1928	1929		Sept. 15, 1928	1929		Sept. 15, 1928	1929		Sept. 15, 1928	1929	
		Aug. 15	Sept. 15		Aug. 15	Sept. 15		Aug. 15	Sept. 15		Aug. 15	Sept. 15
Sirloin steak.....pound	184.6	182.5	181.6	49.2	50.7	50.8	52.9	52.0	51.2	47.8	49.3	48.5
Round steak.....do	60.1	61.1	59.6	44.2	45.5	46.0	45.4	45.5	44.6	46.9	48.5	47.9
Rib roast.....do	44.8	46.5	45.5	36.3	38.3	38.0	37.0	37.9	36.8	36.6	38.3	38.0
Chuck roast.....do	36.0	36.7	36.5	29.4	30.4	30.8	33.0	32.7	32.5	29.4	31.1	30.4
Plate beef.....do	25.4	28.6	28.5	21.3	22.4	22.7	20.1	20.3	20.2	20.6	21.6	22.1
Pork chops.....do	49.6	45.1	46.3	43.3	39.3	41.4	49.9	43.7	44.8	42.7	38.1	39.8
Bacon, sliced.....do	43.0	41.7	41.5	41.5	40.3	40.1	41.6	39.1	39.7	42.6	42.9	42.4
Ham, sliced.....do	57.1	58.8	59.3	46.7	45.8	44.5	56.8	56.2	55.9	55.0	57.2	56.4
Lamb, leg of.....do	41.7	41.8	41.7	44.0	44.9	44.8	40.0	39.9	37.8	37.8	39.2	38.8
Hens.....do	42.9	45.2	44.2	35.3	36.8	36.9	41.1	42.3	41.6	35.9	37.9	36.9
Salmon, canned, red.....do	32.3	30.6	30.5	34.3	31.8	32.3	33.7	30.4	30.9	32.4	31.9	32.3
Milk, fresh.....quart	15.7	15.7	15.7	14.0	14.0	14.0	13.0	13.5	13.5	13.0	13.0	13.0
Milk, evaporated.....16-ounce can	11.5	11.2	11.2	12.3	11.9	11.9	11.4	10.9	10.7	10.6	9.8	9.8
Butter.....pound	56.9	54.5	55.3	61.0	56.5	56.7	57.0	54.1	54.6	58.9	54.9	56.2
Oleomargarine (all butter substitutes).....pound	27.2	26.2	26.0	29.9	29.7	29.8	28.3	28.0	27.8	27.1	25.8	25.8
Cheese.....do	38.7	38.4	38.4	37.1	36.8	36.3	39.1	38.8	38.8	37.2	36.0	36.0
Lard.....do	18.3	17.6	17.8	18.3	17.6	17.6	18.1	16.9	17.1	16.6	15.2	15.3
Vegetable lard substitute.....do	26.3	26.5	26.5	25.9	25.2	25.1	26.0	26.0	26.3	25.3	25.1	25.1
Eggs, strictly fresh.....dozen	65.4	66.0	72.1	47.1	44.9	49.0	52.4	50.0	55.0	44.3	42.4	46.0
Bread.....pound	9.0	9.0	9.0	8.9	8.8	8.8	8.9	8.6	8.3	9.4	9.2	9.1
Flour.....do	5.5	5.6	5.6	5.4	5.4	5.5	5.3	5.3	5.4	5.1	4.9	5.0
Corn meal.....do	5.0	5.1	5.1	4.8	4.8	4.8	6.4	5.7	5.7	4.3	4.7	4.7
Rollod oats.....do	9.0	9.0	9.0	8.6	8.7	8.7	9.4	8.6	8.9	8.1	8.0	8.0
Corn flakes.....8-ounce package	9.4	9.4	9.3	9.6	9.4	9.6	9.4	9.3	9.3	8.7	9.2	9.3
Wheat cereal.....28-ounce package	24.8	24.8	24.8	26.0	25.8	25.4	25.6	25.0	25.4	24.7	24.2	24.2
Macaroni.....pound	23.1	22.8	22.0	20.0	20.6	20.3	20.6	18.7	19.0	19.5	20.2	20.1
Rice.....do	10.4	9.6	9.7	11.5	11.0	10.5	9.4	9.0	8.8	9.8	10.1	10.0
Beans, navy.....do	13.0	13.8	13.8	12.7	14.9	14.4	13.3	14.2	14.5	12.5	14.1	14.1
Potatoes.....do	2.1	3.9	3.5	2.4	3.1	4.1	2.0	4.0	3.7	1.7	3.9	4.0
Onions.....do	5.8	5.8	5.4	6.9	6.7	6.6	5.5	6.4	5.7	5.6	6.8	5.9
Cabbage.....do	4.8	7.2	5.7	4.6	5.8	5.2	4.0	4.5	3.8	3.4	6.1	4.9
Beans, baked.....No. 2 can	11.2	11.8	11.5	10.5	11.4	11.3	10.4	10.8	10.8	10.3	10.6	10.6
Corn, canned.....do	17.3	16.8	16.8	15.1	15.5	15.8	16.2	15.9	16.2	15.3	15.0	14.9
Peas, canned.....do	18.5	17.8	18.3	17.4	17.9	18.2	17.2	17.1	16.8	14.5	15.0	15.0
Tomatoes, canned.....do	12.8	13.7	13.5	10.6	15.0	12.0	13.8	15.9	15.9	10.4	13.4	12.9
Sugar.....pound	6.8	6.4	6.3	7.0	6.3	6.5	6.4	6.0	6.2	7.1	6.7	6.8
Tea.....do	60.1	59.8	60.1	91.3	94.5	96.1	70.9	67.6	67.6	74.8	73.8	73.8
Coffee.....do	52.2	52.0	51.6	48.1	47.6	47.1	48.8	47.5	47.5	47.1	47.1	46.8
Prunes.....do	13.1	14.3	15.2	14.5	14.2	14.4	14.4	14.1	15.1	15.6	16.1	17.2
Raisins.....do	13.5	11.9	11.9	12.7	10.7	11.4	13.2	12.1	12.2	12.4	11.4	11.9
Bananas.....dozen	31.4	32.1	31.4	36.4	33.1	34.3	35.0	28.8	27.5	31.8	31.8	31.5
Oranges.....do	82.9	56.3	57.6	68.5	45.8	39.6	68.8	46.7	45.9	60.2	46.4	45.2

<sup>1</sup> The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

## WHOLESALE AND RETAIL PRICES

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TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, SEPTEMBER 15, 1928, AND AUGUST 15 AND SEPTEMBER 15, 1929—Continued

Article	St. Paul, Minn.			Salt Lake City, Utah			San Francisco, Calif.			Savannah, Ga.		
	Sept. 15, 1928	1929		Sept. 15, 1928	1929		Sept. 15, 1928	1929		Sept. 15, 1928	1929	
		Aug. 15	Sept. 15		Aug. 15	Sept. 15		Aug. 15	Sept. 15		Aug. 15	Sept. 15
Sirloin steak.....pound..	Cts. 46.1	Cts. 45.9	Cts. 44.0	Cts. 39.5	Cts. 40.8	Cts. 40.5	Cts. 40.4	Cts. 41.0	Cts. 41.0	Cts. 41.4	Cts. 45.0	Cts. 42.8
Round steak.....do.....	39.3	40.1	38.8	37.9	39.2	39.1	38.8	39.0	39.0	35.0	38.9	38.3
Rib roast.....do.....	36.8	36.9	34.4	30.7	33.3	32.7	36.4	35.9	35.7	32.3	35.8	34.7
Chuck roast.....do.....	30.2	30.4	29.7	25.8	27.2	27.7	25.0	25.2	24.9	23.8	28.3	27.0
Plate beef.....do.....	18.6	19.0	18.5	18.8	20.4	20.4	20.3	19.9	19.8	19.2	22.5	22.3
Pork chops.....do.....	42.5	37.3	37.3	45.0	40.0	40.6	45.0	43.9	44.2	32.0	33.9	33.7
Bacon, sliced.....do.....	45.4	44.5	44.6	45.6	45.2	45.2	55.8	56.3	56.9	41.2	39.9	39.2
Ham, sliced.....do.....	51.6	51.5	51.7	57.7	58.8	58.8	63.3	64.6	64.8	44.5	46.5	47.0
Lamb, leg of.....do.....	32.9	34.2	32.9	38.1	39.7	38.0	39.3	40.5	39.5	40.8	37.8	39.5
Hens.....do.....	32.3	34.1	33.8	33.7	35.3	34.8	42.2	44.8	45.1	31.0	31.9	33.6
Salmon, canned, red.....do.....	37.5	36.2	36.4	33.3	33.2	33.5	29.2	28.7	28.6	33.4	33.2	33.3
Milk, fresh.....quart..	12.0	12.0	12.0	10.0	10.0	10.0	14.0	14.0	14.0	17.0	17.5	17.5
Milk, evaporated.....16-ounce can..	11.7	11.6	11.2	10.2	9.9	10.0	10.0	9.9	9.9	11.3	10.7	10.3
Butter.....pound..	53.3	49.4	51.0	53.8	50.4	52.1	59.0	54.9	56.8	58.7	53.9	54.7
Oleomargarine (all butter substitutes) .....pound..	24.5	24.0	23.7	25.8	29.0	30.2	25.3	24.9	24.9	50.5	29.9	30.1
Cheese.....do.....	36.9	35.5	35.5	30.9	29.9	29.4	40.3	40.0	40.8	35.6	34.1	33.9
Lard.....do.....	19.5	18.9	18.9	20.9	19.7	19.9	22.7	22.7	22.7	17.6	18.6	18.7
Vegetable lard substitute.....do.....	28.0	27.3	27.0	29.4	29.5	29.3	27.5	27.8	27.8	17.3	17.0	17.2
Eggs, strictly fresh.....dozen..	40.0	39.6	43.8	42.9	41.4	47.3	47.4	47.7	50.7	51.0	47.7	51.7
Bread.....pound..	9.3	9.3	9.3	9.7	9.7	9.7	9.8	9.3	9.3	10.6	10.7	10.6
Flour.....do.....	5.0	5.1	5.0	3.7	3.7	3.6	5.4	5.2	5.2	6.5	6.4	6.3
Corn meal.....do.....	5.0	5.3	5.2	5.7	5.9	5.9	7.2	7.0	7.0	3.7	3.7	3.6
Rolled oats.....do.....	10.2	9.9	9.9	8.7	8.4	8.4	10.2	9.8	9.8	8.6	8.5	8.4
Corn flakes.....8-ounce package..	10.4	10.2	10.1	10.0	10.2	10.2	9.7	9.6	9.6	9.5	9.7	9.7
Wheat cereal.....28-ounce package..	26.3	25.8	26.0	25.5	25.1	25.1	25.2	25.2	25.2	24.3	24.0	24.1
Macaroni.....pound..	18.4	18.5	18.7	19.5	19.9	19.9	16.1	15.9	15.8	17.9	17.4	17.8
Rice.....do.....	10.4	10.8	10.4	8.6	8.8	9.0	9.8	9.6	9.6	8.8	9.3	9.6
Beans, navy.....do.....	13.9	14.8	14.4	11.4	12.6	12.6	11.6	14.1	14.5	13.2	14.8	15.3
Potatoes.....do.....	1.0	2.5	3.0	1.5	3.2	2.8	2.7	4.4	4.3	2.9	4.1	4.3
Onions.....do.....	5.0	6.0	5.2	3.6	6.4	4.5	4.3	4.3	4.3	6.7	7.7	6.5
Cabbage.....do.....	3.5	4.8	4.8	2.6	3.8	3.3	-----	-----	-----	4.9	5.8	4.7
Beans, baked.....No. 2 can..	13.9	14.0	14.0	12.3	12.5	12.4	12.5	12.7	12.9	11.8	10.8	10.7
Corn, canned.....do.....	15.1	15.1	15.1	14.4	14.0	14.2	17.2	17.5	17.3	15.3	15.0	14.8
Peas, canned.....do.....	14.9	14.9	14.9	15.2	14.8	14.8	17.8	17.9	17.6	16.0	16.5	16.2
Tomatoes, canned.....do.....	14.0	15.0	14.8	13.5	14.3	14.0	14.6	15.9	16.0	9.7	11.2	10.0
Sugar.....pound..	7.4	6.9	6.8	7.6	7.0	7.1	6.7	6.5	6.4	7.0	6.4	6.3
Tea.....do.....	67.0	72.7	72.7	86.6	84.7	84.7	71.7	73.6	73.3	78.7	81.6	81.8
Coffee.....do.....	53.6	53.3	52.9	54.7	54.9	54.7	53.5	53.4	52.9	46.0	46.1	45.8
Prunes.....do.....	13.5	15.7	16.6	13.2	13.9	14.6	11.3	12.8	14.3	13.7	14.8	16.5
Raisins.....do.....	13.9	13.9	13.9	12.7	11.7	12.2	11.1	10.5	10.5	12.6	11.5	11.5
Bananas.....dozen..	10.1	10.1	10.2	12.5	11.3	11.3	26.5	28.6	29.4	28.5	28.8	31.0
Oranges.....do.....	66.4	44.3	41.9	63.3	36.2	35.7	58.4	42.7	42.3	65.0	43.0	44.8

<sup>1</sup> Per pound.<sup>4</sup> No. 2½ can.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, SEPTEMBER 15, 1928, AND AUGUST 15 AND SEPTEMBER 15, 1929—Continued

Article	Scranton, Pa.			Seattle, Wash.			Springfield, Ill.			Washington, D. C.		
	Sept. 15, 1928	1929		Sept. 15, 1928	1929		Sept. 15, 1928	1929		Sept. 15, 1928	1929	
		Aug. 15	Sept. 15		Aug. 15	Sept. 15		Aug. 15	Sept. 15		Aug. 15	Sept. 15
Sirloin steak.....pound..	Cts. 66.0	Cts. 65.6	Cts. 65.4	Cts. 42.2	Cts. 45.4	Cts. 45.0	Cts. 47.5	Cts. 46.2	Cts. 44.6	Cts. 58.9	Cts. 59.2	Cts. 57.5
Round steak.....do.....	55.5	56.3	55.7	38.0	40.0	39.7	47.1	46.6	44.8	52.8	53.8	52.3
Rib roast.....do.....	46.5	44.4	43.4	34.6	35.3	35.4	33.6	35.6	33.8	41.3	41.1	41.2
Chuck roast.....do.....	38.3	37.2	36.5	26.7	27.9	27.1	31.5	31.3	30.9	34.7	34.5	33.9
Plate beef.....do.....	19.6	20.8	20.4	20.0	21.2	20.6	22.1	22.0	21.4	21.6	20.8	21.6
Pork chops.....do.....	49.5	45.5	46.6	46.5	42.6	42.4	41.2	35.0	35.7	47.8	43.4	43.8
Bacon, sliced.....do.....	48.2	48.1	47.7	56.7	55.4	54.5	45.7	43.6	42.7	43.3	44.4	44.8
Ham, sliced.....do.....	61.3	62.9	61.3	61.5	61.1	60.5	53.6	55.0	53.6	59.7	60.0	58.6
Lamb, leg of.....do.....	47.7	48.3	46.3	37.8	38.3	37.4	42.8	43.5	41.6	42.0	42.4	41.2
Hens.....do.....	44.3	47.2	46.2	35.4	37.2	36.6	35.6	35.3	34.7	41.5	43.1	42.2
Salmon, canned, red.....do.....	34.8	33.1	32.9	34.5	32.7	33.1	36.2	34.0	34.3	32.9	30.4	30.4
Milk, fresh.....quart.....	13.0	13.0	14.0	12.0	12.0	12.0	14.4	14.4	14.4	15.0	14.8	14.8
Milk, evaporated.....16-ounce can.....	12.0	11.5	11.4	10.2	10.1	10.1	11.8	11.2	10.6	11.9	11.4	11.4
Butter.....pound.....	59.0	54.8	55.6	58.4	54.6	56.6	55.2	51.6	53.5	61.4	56.4	57.6
Oleomargarine (all butter substitutes).....pound.....	26.0	27.8	27.8	25.1	25.0	25.0	28.1	28.0	28.2	26.2	26.7	26.5
Cheese.....do.....	39.2	38.2	38.6	35.5	35.6	35.4	38.5	37.0	37.4	40.4	39.9	39.9
Lard.....do.....	19.8	19.4	19.8	20.4	19.7	19.5	19.2	17.7	17.8	19.7	18.3	18.3
Vegetable lard substitute.....do.....	26.0	26.4	26.4	27.5	26.7	26.6	27.7	27.4	27.4	25.2	24.6	24.6
Eggs, strictly fresh.....dozen.....	57.8	52.7	59.4	51.5	47.1	53.9	41.5	39.7	44.7	54.6	50.5	56.2
Bread.....pound.....	10.1	9.8	9.8	9.6	9.6	9.6	10.2	10.1	10.1	8.9	8.9	8.9
Flour.....do.....	5.7	5.6	5.7	4.7	4.8	4.8	5.1	4.7	4.8	5.7	5.8	5.7
Corn meal.....do.....	7.7	7.6	7.6	5.8	5.8	6.1	4.7	4.6	4.8	5.4	5.1	5.1
Rolls, oats.....do.....	9.8	9.9	9.9	8.8	9.6	9.7	9.9	9.5	9.6	9.1	9.1	9.1
Corn flakes.....8-ounce package.....	9.9	9.8	9.8	9.8	9.9	9.8	10.0	9.5	9.5	9.4	9.4	9.2
Wheat cereal.....28-ounce package.....	25.2	25.5	25.5	26.6	26.7	26.6	28.1	27.2	27.2	24.8	24.3	24.5
Macaroni.....pound.....	22.9	22.8	22.7	18.1	17.9	17.3	19.1	18.4	18.9	22.2	21.9	22.0
Rice.....do.....	10.3	10.0	10.0	10.4	10.1	9.9	10.4	10.1	9.7	10.7	11.2	11.2
Beans, navy.....do.....	11.7	14.5	14.7	13.1	15.2	15.9	13.8	14.1	14.0	12.8	14.1	13.8
Potatoes.....do.....	2.0	4.2	4.0	2.2	3.8	3.2	1.6	3.5	3.6	2.4	4.6	4.5
Onions.....do.....	6.0	6.4	5.3	3.9	4.3	4.1	5.3	6.7	6.0	7.2	7.2	6.1
Cabbage.....do.....	4.3	4.8	4.3	3.8	4.0	3.8	3.4	4.5	5.0	4.8	6.7	5.3
Beans, baked.....No. 2 can.....	11.7	12.2	12.2	11.2	12.4	12.4	10.7	11.1	11.0	10.4	11.1	10.8
Corn, canned.....do.....	17.2	16.9	16.9	18.0	17.7	17.6	15.0	14.9	14.9	15.4	15.7	15.4
Peas, canned.....do.....	18.0	17.6	17.3	18.5	18.5	18.2	16.1	15.4	15.9	15.2	15.0	15.9
Tomatoes, canned.....do.....	12.0	14.2	13.4	16.2	16.4	16.8	13.6	15.4	14.9	10.4	12.6	11.3
Sugar.....pound.....	7.0	6.6	6.6	6.9	6.4	6.5	7.6	7.0	7.1	6.8	6.5	6.5
Tea.....do.....	68.5	66.1	66.1	78.6	79.5	79.7	83.8	83.5	82.7	96.3	90.8	91.6
Coffee.....do.....	50.5	50.0	50.4	52.5	51.5	51.4	52.4	51.6	51.4	47.7	46.8	46.1
Prunes.....do.....	13.9	15.1	15.4	12.5	15.1	15.9	15.2	15.6	16.6	14.0	16.8	16.0
Raisins.....do.....	13.3	11.8	11.8	12.8	10.6	10.7	14.3	12.6	12.7	13.3	13.2	13.2
Bananas.....dozen.....	30.8	30.0	30.8	10.4	10.9	10.1	9.1	9.0	9.6	30.5	30.5	30.9
Oranges.....do.....	74.9	54.1	49.5	58.6	34.8	31.6	69.9	44.5	41.5	74.4	48.5	46.1

\* Per pound.

\* No. 2½ can.



## Comparison of Retail Food Costs in 51 Cities

TABLE 6 shows for 39 cities the percentage of increase or decrease in the retail cost of food<sup>3</sup> in September, 1929, compared with the average cost in the year 1913, in September, 1928, and August, 1929. For 12 other cities comparisons are given for the 1-year and the 1-month periods; these cities have been scheduled by the bureau at different dates since 1913. The percentage changes are based on actual retail prices secured each month from retail dealers and on the average family consumption of these articles in each city.<sup>4</sup>

Effort has been made by the bureau each month to have all schedules for each city included in the average prices. For the month of September, 99 per cent of all the firms supplying retail prices in the 51 cities sent in a report promptly. The following-named 39 cities had a perfect record; that is, every merchant who is cooperating with the bureau sent in his report in time for his prices to be included in the city averages: Birmingham, Boston, Bridgeport, Butte, Charleston, S. C., Chicago, Cincinnati, Cleveland, Columbus, Dallas, Denver, Fall River, Indianapolis, Kansas City, Los Angeles, Louisville, Manchester, Memphis, Milwaukee, Minneapolis, Mobile, New Haven, New Orleans, New York, Norfolk, Omaha, Pittsburgh, Portland, Me., Portland, Oreg., Providence, Rochester, St. Louis, St. Paul, Salt Lake City, San Francisco, Savannah, Scranton, Springfield, Ill., and Washington.

TABLE 6.—PERCENTAGE CHANGE IN THE RETAIL COST OF FOOD IN SEPTEMBER, 1929, COMPARED WITH THE COST IN AUGUST, 1929, SEPTEMBER, 1928, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES

City	Percentage increase, September, 1929, compared with—			City	Percentage increase, September, 1929, compared with—		
	1913	September, 1928	August, 1929		1913	September, 1928	August, 1929
Atlanta.....	64.0	2.7	0.2	Minneapolis.....	61.4	5.1	1.3
Baltimore.....	65.9	0.7	* 0.1	Mobile.....	.....	0.9	* 0.4
Birmingham.....	62.1	0.4	* 0.3	Newark.....	55.2	1.2	* 0.1
Boston.....	61.6	0.2	* 1.6	New Haven.....	65.0	2.7	1.8
Bridgeport.....	.....	1.1	0.4	New Orleans.....	59.6	2.4	0.5
Buffalo.....	66.0	2.2	* 0.2	New York.....	64.1	2.2	0.5
Butte.....	.....	3.8	* 0.9	Norfolk.....	.....	2.4	1.0
Charleston, S. C.....	62.1	2.5	0.4	Omaha.....	52.9	1.5	3.2
Chicago.....	69.7	* 0.3	* 0.9	Peoria.....	.....	2.8	0.7
Cincinnati.....	65.7	2.1	0.7	Philadelphia.....	64.3	2.1	0.5
Cleveland.....	59.6	1.4	* 0.3	Pittsburgh.....	63.5	2.0	0.4
Columbus.....	.....	2.1	* 0.1	Portland, Me.....	.....	0.1	* 1.1
Dallas.....	59.9	1.6	1.0	Portland, Oreg.....	46.6	1.9	0.7
Denver.....	42.1	1.0	* 1.6	Providence.....	64.2	2.4	* 0.1
Detroit.....	69.3	2.6	* 0.6	Richmond.....	66.0	1.0	1.9
Fall River.....	60.1	1.6	0.3	Rochester.....	.....	0.7	* 0.4
Houston.....	.....	3.3	1.2	St. Louis.....	65.1	4.2	0.4
Indianapolis.....	60.7	3.6	0.6	St. Paul.....	.....	3.0	0.8
Jacksonville.....	49.6	* 0.5	0.2	Salt Lake City.....	39.2	2.8	0.3
Kansas City.....	59.3	4.5	1.1	San Francisco.....	57.4	2.0	0.7
Little Rock.....	55.7	4.8	1.4	Savannah.....	.....	2.3	0.1
Los Angeles.....	51.1	2.0	1.8	Scranton.....	69.7	2.4	1.2
Louisville.....	58.9	1.8	1.3	Seattle.....	52.6	1.4	0.1
Manchester.....	58.8	0.1	* 0.8	Springfield, Ill.....	.....	1.9	0.6
Memphis.....	53.4	1.5	* 0.8	Washington.....	70.7	0.4	* 0.2
Milwaukee.....	64.4	2.9	* 0.3				

\* Decrease.

<sup>3</sup> For list of articles, see note 1, p. 150.

<sup>4</sup> The consumption figures used from January, 1913, to December, 1920, for each article in each city are given in the Labor Review for November, 1918, pp. 94 and 95. The consumption figures which have been used for each month, beginning with January, 1921, are given in the Labor Review for March, 1921, p. 26.

Retail Price of Coal in the United States <sup>a</sup>

THE following table shows the average retail prices of coal on September 15, 1928, and August 15 and September 15, 1929, for the United States and for each of the cities from which retail food prices have been obtained. The prices quoted are for coal delivered to consumers, but do not include charges for storing the coal in cellar or coal bin where an extra handling is necessary.

In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these form any considerable portion of the sales for household use.

The prices shown for bituminous coal are averages of prices of the several kinds sold for household use.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON SEPTEMBER 15, 1928, AND AUGUST 15 AND SEPTEMBER 15, 1929

City, and kind of coal	1928		1929		City, and kind of coal	1928		1929	
	Sept. 15	Aug. 15	Sept. 15	Sept. 15		Sept. 15	Aug. 15	Sept. 15	Sept. 15
United States:					Chicago, Ill.—Continued.				
Pennsylvania anthracite—					Bituminous—				
Stove—					Prepared sizes—				
Average price.....	\$15.21	\$15.01	\$15.21		High volatile.....	\$8.31	\$7.88	\$8.22	
Index (1913=100).....	196.9	194.3	196.8		Low volatile.....	10.60	10.60	11.10	
Chestnut—					Run of mine—				
Average price.....	\$14.93	\$14.67	\$14.87		Low volatile.....	8.00	7.75	8.00	
Index (1913=100).....	188.7	185.4	187.9		Cincinnati, Ohio:				
Bituminous—					Prepared sizes—				
Average price.....	\$8.84	\$8.69	\$8.87		High volatile.....	5.65	5.70	5.95	
Index (1913=100).....	162.6	159.9	163.2		Low volatile.....	7.50	7.88	7.88	
Atlanta, Ga.:					Cleveland, Ohio:				
Bituminous, prepared sizes.	\$7.63	\$7.76	\$7.78		Pennsylvania anthracite—				
Baltimore, Md.:					Stove.....	15.05	15.14	15.19	
Pennsylvania anthracite—					Chestnut.....	14.64	14.70	14.75	
Stove.....	15.75	14.00	14.25		Bituminous—				
Chestnut.....	15.25	13.50	13.75		Prepared sizes—				
Bituminous, run of mine—					High volatile.....	7.26	7.16	7.03	
High volatile.....	7.82	7.88	7.88		Low volatile.....	9.22	9.21	9.64	
Birmingham, Ala.:					Columbus, Ohio:				
Bituminous, prepared sizes.	7.38	7.15	7.39		Bituminous—				
Boston, Mass.:					Prepared sizes—				
Pennsylvania anthracite—					High volatile.....	5.95	5.88	6.21	
Stove.....	15.75	15.85	15.95		Low volatile.....	7.44	7.31	7.81	
Chestnut.....	15.50	15.35	15.45		Dallas, Tex.:				
Bridgeport, Conn.:					Arkansas anthracite—Egg..	15.50	14.75	14.75	
Pennsylvania anthracite—					Bituminous, prepared sizes.	13.08	12.58	12.67	
Stove.....	15.50	14.50	15.25		Denver, Colo.:				
Chestnut.....	15.50	14.50	15.25		Colorado anthracite—				
Buffalo, N. Y.:					Furnace, 1 and 2 mixed..	15.75	14.80	14.75	
Pennsylvania anthracite—					Stove, 3 and 5 mixed.....	15.75	14.30	14.75	
Stove.....	13.92	13.36	13.51		Bituminous, prepared sizes.	10.57	9.88	10.31	
Chestnut.....	13.56	12.86	13.01		Detroit, Mich.:				
Butte, Mont.:					Pennsylvania anthracite—				
Bituminous, prepared sizes.	10.92	11.18	11.14		Stove.....	15.90	15.50	16.00	
Charleston, S. C.:					Chestnut.....	15.40	15.00	15.50	
Bituminous, prepared sizes.	11.00	9.67	9.67		Bituminous—				
Chicago, Ill.:					Prepared sizes—				
Pennsylvania anthracite—					High volatile.....	8.27	8.31	8.39	
Stove.....	16.50	16.65	16.63		Low volatile.....	9.81	9.50	10.20	
Chestnut.....	16.20	16.20	16.18		Run of mine—				
					Low volatile.....	7.67	7.67	8.00	

<sup>1</sup> Per ton of 2,240 pounds.

<sup>a</sup> Prices of coal were formerly secured semiannually and published in the March and September issues of the Labor Review. Since June, 1920, these prices have been secured and published monthly.

# WHOLESALE AND RETAIL PRICES

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AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON SEPTEMBER 15, 1928, AND AUGUST 15 AND SEPTEMBER 15, 1929—Continued

City, and kind of coal	1928	1929		City, and kind of coal	1928	1929	
	Sept. 15	Aug. 15	Sept. 15		Sept. 15	Aug. 15	Sept. 15
Fall River, Mass.:				Norfolk, Va.—Continued.			
Pennsylvania anthracite—				Bituminous—			
Stove	\$16.50	\$16.00	\$16.50	Prepared sizes—			
Chestnut	16.25	15.75	16.25	High volatile	\$7.69	\$7.81	\$7.81
Houston, Tex.:				Low volatile	9.50	9.00	9.50
Bituminous, prepared sizes	11.60	11.60	12.20	Run of mine—			
Indianapolis, Ind.:				Low volatile	7.00	7.00	7.00
Bituminous—				Omaha, Nebr.:			
Prepared sizes—				Bituminous, prepared sizes	9.52	9.71	9.69
High volatile	6.28	6.07	6.08	Peoria, Ill.:			
Low volatile	8.46	8.11	8.32	Bituminous, prepared sizes	6.68	6.52	6.62
Run of mine—				Philadelphia, Pa.:			
Low volatile	7.00	6.83	6.92	Pennsylvania anthracite—			
Jacksonville, Fla.:				Stove	14.25	14.50	15.00
Bituminous, prepared sizes	12.00	11.00	12.00	Chestnut	13.93	14.00	14.50
Kansas City, Mo.:				Pittsburgh, Pa.:			
Arkansas anthracite—				Pennsylvania anthracite—			
Furnace	12.60	12.35	12.45	Chestnut	14.75	15.00	15.00
Stove No. 4	14.17	13.33	13.42	Bituminous, prepared sizes	5.12	5.11	5.11
Bituminous, prepared sizes	7.13	7.10	7.20	Portland, Me.:			
Little Rock, Ark.:				Pennsylvania anthracite—			
Arkansas anthracite—Egg	13.50	12.50	12.75	Stove	16.80	16.32	16.80
Bituminous, prepared sizes	9.65	9.40	9.35	Chestnut	16.80	16.32	16.80
Los Angeles, Calif.:				Portland, Oreg.:			
Bituminous, prepared sizes	15.75	16.00	16.50	Bituminous, prepared sizes	12.60	12.54	12.79
Louisville, Ky.:				Providence, R. I.:			
Bituminous—				Pennsylvania anthracite—			
Prepared sizes—				Stove	16.00	15.50	16.00
High volatile	6.41	6.16	6.66	Chestnut	16.00	15.50	16.00
Low volatile	8.90	8.75	9.00	Richmond, Va.:			
Manchester, N. H.:				Pennsylvania anthracite—			
Pennsylvania anthracite—				Stove	14.33	14.00	14.00
Stove	17.25	16.75	17.00	Chestnut	14.33	14.00	14.00
Chestnut	17.00	16.75	17.00	Bituminous—			
Memphis, Tenn.:				Prepared sizes—			
Bituminous, prepared sizes	6.39	7.39	7.41	High volatile	8.13	7.88	7.75
Milwaukee, Wis.:				Low volatile	9.19	8.53	8.53
Pennsylvania anthracite—				Run of mine—			
Stove	16.20	16.10	16.20	Low volatile	7.20	6.75	6.75
Chestnut	15.90	15.65	15.75	Rochester, N. Y.:			
Bituminous—				Pennsylvania anthracite—			
Prepared sizes—				Stove	14.60	14.50	14.50
High volatile	7.80	7.68	7.68	Chestnut	14.25	14.00	14.00
Low volatile	10.57	10.68	10.88	St. Louis, Mo.:			
Minneapolis, Minn.:				Pennsylvania anthracite—			
Pennsylvania anthracite—				Stove	16.65	16.45	16.65
Stove	18.20	18.10	18.20	Chestnut	16.40	16.20	16.40
Chestnut	17.90	17.65	17.75	Bituminous, prepared sizes	6.06	6.54	6.71
Bituminous—				St. Paul, Minn.:			
Prepared sizes—				Pennsylvania anthracite—			
High volatile	10.80	10.42	10.53	Stove	18.20	18.10	18.20
Low volatile	13.50	13.40	13.65	Chestnut	17.90	17.65	17.75
Mobile, Ala.:				Bituminous—			
Bituminous, prepared sizes	9.42	9.02	9.15	Prepared sizes—			
Newark, N. J.:				High volatile	10.68	10.21	10.28
Pennsylvania anthracite—				Low volatile	13.50	13.40	13.65
Stove	14.00	13.65	13.89	Salt Lake City, Utah:			
Chestnut	13.50	13.15	13.39	Colorado anthracite—			
New Haven, Conn.:				Furnace, 1 and 2 mixed	18.00	18.00	18.00
Pennsylvania anthracite—				Stove, 3 and 5 mixed	18.00	18.00	18.00
Stove	15.00	14.66	14.85	Bituminous, prepared sizes	8.50	7.96	7.96
Chestnut	15.00	14.66	14.85	San Francisco, Calif.:			
New Orleans, La.:				New Mexico anthracite—			
Bituminous, prepared sizes	9.21	9.21	9.14	Cerillos egg	26.00	25.00	26.00
New York, N. Y.:				Colorado anthracite—			
Pennsylvania anthracite—				Egg	25.50	24.50	25.50
Stove	14.71	14.25	14.33	Bituminous, prepared sizes	17.13	16.13	17.13
Chestnut	14.21	13.75	13.83	Savannah, Ga.:			
Norfolk, Va.:				Bituminous, prepared sizes	10.62	9.54	9.74
Pennsylvania anthracite—				Scranton, Pa.:			
Stove	14.00	14.00	14.50	Pennsylvania anthracite—			
Chestnut	14.00	14.00	14.50	Stove	10.53	10.23	10.27
				Chestnut	10.33	9.87	9.90

<sup>1</sup> Per ton of 2,240 pounds.

<sup>2</sup> The average price of coal delivered in bin is 50 cents higher than here shown. Practically all coal is delivered in bin.

<sup>3</sup> All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above price.



## AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON SEPTEMBER 15, 1928, AND AUGUST 15 AND SEPTEMBER 15, 1929—Continued

City, and kind of coal	1928	1929		City, and kind of coal	1928	1929	
	Sept. 15	Aug. 15	Sept. 15		Sept. 15	Aug. 15	Sept. 15
Seattle, Wash.:				Washington, D. C.—Contd.			
Bituminous, prepared sizes..	\$10.08	\$10.63	\$10.65	Bituminous—			
Springfield, Ill.:				Prepared sizes—			
Bituminous, prepared sizes..	4.44	4.34	4.34	High volatile.....	\$8.63	\$8.63	\$8.63
Washington, D. C.:				Low volatile.....	10.92	11.00	11.41
Pennsylvania anthracite—				Run of mine—			
Stove.....	15.33	15.41	15.58	Mixed.....	7.60	7.63	7.75
Chestnut.....	14.96	14.91	15.08				

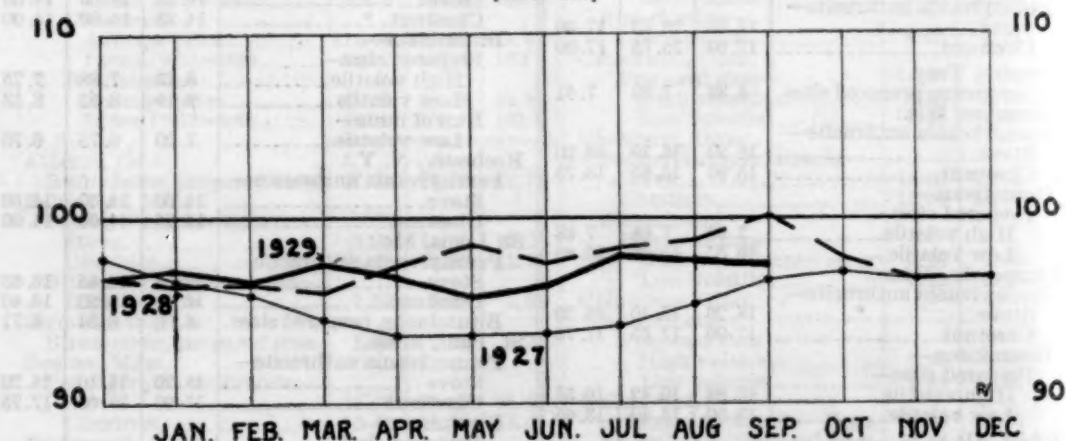
<sup>1</sup> Per ton of 2,240 pounds.

## Index Numbers of Wholesale Prices in September, 1929

**C**ONTINUED recession of wholesale prices is shown for September by information collected in leading markets by the Bureau of Labor Statistics of the United States Department of Labor. The bureau's weighted index number, with prices in 1926 as 100, stands at 97.5 for September compared with 97.7 for August, a decrease of one-fifth of 1 per cent. Compared with September, 1928, with an index

## TREND OF WHOLESALE PRICES

[1926=100]



number of 100.1, a decrease of 2½ per cent is shown. Based on these figures, the purchasing power of the dollar in September was 102.6 compared with 100 in the year 1926.

Farm products showed a slight price decline from the August level, due mainly to decreases for beef cattle, hogs, sheep and lambs, and hay. Most grains, on the other hand, averaged higher than in August, as did also eggs and flaxseed. Only minor changes were reported for corn, cotton, potatoes, and wool.

Among foods, increases were shown for butter, cheese, lemons, oranges, and raw sugar, while flour, corn meal, and fresh and cured meats were lower.

Hides and skins continued their recent upward movement, with leather also advancing slightly. Boots and shoes showed no change in the general price level.

Prices of cotton textiles were mostly unchanged from those of August, while silk and rayon advanced and woolen and worsted goods declined slightly. Other textile products, including burlap, manila hemp, and jute, also averaged somewhat lower.

Fuel and lighting materials were somewhat higher, due to advances in anthracite and bituminous coal. Prices of coke and petroleum products showed a downward tendency.

No change in the general price level was reported for the group of iron and steel products, while nonferrous metals as a group were somewhat cheaper.

Among building materials advances were reported for lumber and paint materials, with brick and cement showing a decline.

In the group of chemic alsand drugs decreases in fertilizer materials and prepared fertilizers were more than offset by increases in industrial chemicals and pharmaceuticals, resulting in a slight increase for the group as a whole.

No change in the price level was reported for the group of house-furnishing goods.

In the group designated as miscellaneous, cattle-feed prices advanced sharply, bringing the general level above that of August.

Raw materials as a whole showed no change from the price level of the preceding month, while semimanufactured articles advanced and finished products declined. Nonagricultural commodities as a whole advanced appreciably in price.

Comparing prices in September with those of a year ago, as measured by changes in these index numbers, it is seen that hides and leather products were considerably lower, and fuel and lighting materials, foods, textile materials, farm products, and chemicals and drugs, were somewhat lower. Only a minor change is shown for house-furnishing goods, while iron and steel and nonferrous metals in the group of metals and metal products and lumber and paint materials in the group of building materials were appreciably higher.

## INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS AND SUBGROUPS OF COMMODITIES

[1926=100]

Groups and subgroups	September, 1928	August, 1929	September, 1929	Purchasing power of the dollar, September, 1929
All commodities.....	100.1	97.7	97.5	102.6
Farm products.....	108.8	107.1	106.6	93.8
Grains.....	97.5	99.3	101.6	98.4
Livestock and poultry.....	124.0	112.8	106.6	93.8
Other farm products.....	102.3	105.8	108.3	92.3
Foods.....	106.9	103.1	103.2	96.9
Butter, cheese, and milk.....	109.3	104.4	106.5	93.9
Meats.....	126.5	116.0	113.1	88.4
Other foods.....	94.0	94.8	95.9	104.3
Hides and leather products.....	120.7	100.7	110.8	90.3
Hides and skins.....	141.9	117.2	121.3	82.4
Leather.....	126.2	111.5	112.4	89.0
Boots and shoes.....	110.8	106.1	106.1	94.3
Other leather products.....	109.0	106.0	106.6	93.8
Textile products.....	95.6	93.1	93.1	107.4
Cotton goods.....	100.1	98.7	98.9	101.1
Silk and rayon.....	82.7	79.9	80.3	124.5
Woolen and worsted goods.....	100.1	96.5	96.2	104.0
Other textile products.....	86.5	84.5	83.1	120.3
Fuel and lighting materials.....	85.1	80.9	81.1	123.3
Anthracite coal.....	91.2	90.0	90.6	110.4
Bituminous coal.....	93.2	90.5	91.3	109.5
Coke.....	84.9	84.6	84.4	118.5
Manufactured gas.....	94.6	94.3	(1)	
Petroleum products.....	77.1	70.3	70.2	142.5
Metals and metal products.....	100.5	104.3	104.1	96.1
Iron and steel.....	94.7	97.6	97.6	102.5
Nonferrous metals.....	93.8	105.1	104.9	95.3
Nonagricultural implements.....	98.8	98.3	98.2	101.8
Automobiles.....	108.7	110.7	110.3	90.7
Other metal products.....	96.9	98.5	98.5	101.5
Building materials.....	94.7	96.7	97.5	102.6
Lumber.....	91.3	94.2	95.7	104.5
Brick.....	92.4	89.6	89.4	111.9
Cement.....	94.6	92.0	86.0	116.3
Structural steel.....	94.5	99.6	99.6	100.4
Paint materials.....	85.8	92.8	99.9	100.1
Other building materials.....	104.2	105.4	105.4	94.9
Chemicals and drugs.....	95.1	93.7	93.9	106.5
Chemicals.....	101.1	99.3	99.9	100.1
Drugs and pharmaceuticals.....	70.1	70.1	70.3	142.2
Fertilizer materials.....	93.5	90.5	89.9	111.2
Fertilizers.....	97.5	98.2	97.8	102.2
House-furnishing goods.....	97.2	97.1	97.1	103.0
Furniture.....	97.5	96.7	96.7	103.4
Furnishings.....	97.0	97.3	97.3	102.8
Miscellaneous.....	79.7	81.3	81.7	122.4
Cattle feed.....	121.1	124.7	132.5	75.5
Paper and pulp.....	88.8	88.2	88.2	113.4
Rubber.....	38.1	42.6	41.9	238.7
Automobile tires.....	61.6	55.3	55.3	180.8
Other miscellaneous.....	98.0	108.6	108.5	92.2
Raw materials.....	100.5	98.9	98.9	101.1
Semimanufactured articles.....	96.9	96.2	97.6	102.5
Finished products.....	100.5	97.3	97.0	103.1
Nonagricultural commodities.....	97.8	94.3	95.1	105.2

<sup>1</sup> Data not yet available.



## COST OF LIVING

### Incomes and Expenditures of Village and Town Families in Minnesota

A STUDY of the economic situation of village and town families in Minnesota was published in the early part of 1929 by the University of Minnesota as its bulletin No. 253.<sup>1</sup> Data on semiurban conditions were desired for comparison with similar data for farm families of the State obtained in earlier studies (published by the university as Minnesota Bulletins 234, 240, and 246).

The information presented in the present study covers the period July, 1926, to July, 1927, and was obtained through personal visits by the investigators. Where records were kept by the families these were used, being checked in some cases by visits to stores and shops where the trading was done. Eleven representative communities scattered throughout the State were selected for the study, the populations ranging from 742 to 7,086. The total number of families included was 395, an average of 36 per community. The smallest number covered in any one place was 24 and the largest 43. The average number of persons per family was 4.2, with 3.3 adult units.

For the purposes of the study the families were divided into 10 groups, according to the occupation or social status of their heads, as shown in Table 1, reproduced from the report. Practically every group was represented in each community.

TABLE 1.—DISTRIBUTION OF FAMILIES BY OCCUPATION GROUP

Status	Number of families	Number of persons	Per cent of total families	Average persons per family	Average adult units per family
Widows and spinsters.....	18	61	5	3.3	2.7
Retired farmers.....	32	104	8	3.2	2.6
Common labor.....	41	195	10	4.7	3.5
Semiskilled labor.....	46	218	12	4.7	3.7
Skilled labor.....	41	179	10	4.3	3.4
Clerical or managerial.....	78	356	20	4.5	3.6
Lower business.....	58	247	15	4.2	3.4
Lower professional.....	25	94	6	3.7	3.0
Upper business.....	37	150	9	4.0	3.2
Upper professional.....	19	73	5	3.8	3.1
Total.....	395	1,677	100	4.2	3.3

Cash receipts were considered as income. Unless garden produce and other items produced by the family were sold or traded for things that ordinarily would be bought, they were not included as income. Net receipts from businesses were considered as income and included

<sup>1</sup> Incomes and expenditures of village and town families in Minnesota, by Carle C. Zimmerman.

amounts reinvested in the business. All items purchased with the cash incomes, including savings and investments for the future, were classed as expenditures. Table 2, taken from the report, shows the average income and estimated expenditure per family and per adult unit by occupation group.

TABLE 2.—AVERAGE INCOME AND EXPENDITURE PER FAMILY AND PER ADULT UNIT, BY OCCUPATION GROUP

Status	Average per family			Average per adult unit		
	Income	Expenditure	Difference between expenditure and income	Income	Expenditure	Difference between expenditure and income
Widows and spinsters.....	\$948	\$1,121	-\$173	\$357	\$422	-\$65
Retired farmers.....	1,318	1,767	-449	501	671	-170
Common labor.....	900	961	-61	261	278	-17
Semiskilled labor.....	1,496	1,552	-56	403	418	-15
Skilled labor.....	1,879	1,943	-64	552	571	-19
Clerical or managerial.....	2,653	2,910	-257	732	803	-71
Lower business.....	1,949	1,986	-37	566	577	-11
Lower professional.....	2,377	2,499	-122	799	840	-41
Upper business.....	5,332	5,374	-42	1,688	1,701	-13
Upper professional.....	5,698	5,592	+106	1,838	1,804	+34
Total average.....	2,347	2,473	-126	704	742	-38

In all but one occupation group the expenditure exceeded the income. The report explains this as follows:

These differences between expenditures and incomes do not mean losses or gains for the year. Investments and savings were considered as expenditures. Nearly all families either invested or placed in savings the greater portion of the funds not spent for present wants. Those in the lower income groups, who saved relatively little, tended to adjust their living expenses to their income-producing ability. The causes of the apparent deficit in most of the groups were unusually high investments, not met out of present incomes. Some of these were due to the building of houses or the adding of improvements, which had to be met out of savings or borrowings; and others were due to unusual circumstances, as accidents, deaths, or loss of work. There are few permanent-deficit families in any of these communities, only four of those interviewed receiving public charity. The surplus amounts were due to incomes not yet invested. \* \* \* Although the families generally spend about all they make, nevertheless, the communities, families, and individuals tend to adjust their expenditures to their income-producing ability. The same tendency to adjust living conditions to incomes appears, as far as living conditions are the result of incomes and expenditures.

There were 216 families which spent more than their incomes. Fifty-six, or 28 per cent of those reporting the reasons gave sickness as the reason; 8, or 4 per cent, old age; 39, or 20 per cent, business or bank failure or unemployment; 62, or 31 per cent, building a house or improving the house and other buildings; and 25, or 13 per cent, buying a car. Eight families, or 4 per cent, gave other reasons (including starting in business), which are not specified in the report, while 18 gave no explanation.

Table 3 shows the per cent of the income derived from each specified source, for the different occupation groups.

TABLE 3.—PERCENTAGE DISTRIBUTION OF SOURCES OF FAMILY INCOME, BY OCCUPATION GROUP

Status	Per cent of income derived from—								Total
	Male head <sup>1</sup>	Town real property <sup>2</sup>	Farm property	Children	Boarders <sup>3</sup>	Mothers' wages	Garden produce and dairy products	Other <sup>4</sup>	
Widows and spinsters.....	0	33	6	7	23	11	4	16	100
Retired farmers.....	22	32	28	6	4	1	2	5	100
Common labor.....	78	1	2	8	2	2	3	4	100
Semiskilled labor.....	76	1	3	13	3	2	2	( <sup>5</sup> )	100
Skilled labor.....	88	1	2	1	3	2	0	3	100
Clerical or managerial.....	85	5	2	4	1	2	( <sup>5</sup> )	1	100
Lower business.....	85	4	2	3	2	1	( <sup>5</sup> )	3	100
Lower professional.....	81	3	( <sup>5</sup> )	6	2	1	( <sup>5</sup> )	7	100
Upper business.....	90	6	1	1	1	0	( <sup>5</sup> )	1	100
Upper professional.....	91	5	2	0	1	0	( <sup>5</sup> )	1	100
Total percentage.....	81	6	3	4	2	1	1	2	100

<sup>1</sup> Wages, salaries, and profits of business.<sup>2</sup> Town real property and all personal property such as bonds, stocks, and interest.<sup>3</sup> Gross amount paid for board and room rent.<sup>4</sup> Legacies, gifts, insurance, etc.<sup>5</sup> Less than one-half of 1 per cent.

It was found that with increasing proportions of the family income coming from the head of the household, "family industry and the employment of women and children outside the home decline. In some cases this might be interpreted as an improvement in living conditions. In others it meant that the spare time of the women and children was spent at diversions that did not necessarily improve either home life or the economic future of the children. The so-called social struggle, among the upper classes in the towns above 5,000 in population, was very intense."

The report states that "this study, as conducted, shows no tangible relationship between size of community and size of income."

Expenditures have been grouped in the report under seven main heads: Household, food, clothing, health, other living expenses, automobiles, and investments. The average amounts spent under each of these general heads, together with the proportion each formed of the total expense, are shown in Table 4.

The household expenses included fuel, light, rent, repairs to buildings, property insurance, telephone, music (musical instruments, records, sheet music, radios), domestic help, taxes, operation, and equipment. The clothing item included laundry bills. "Other living" expenses covered expenditures for religion and charity, education, reading, gifts, travel, tobacco, toilet and barber services, entertainment, organization dues (except insurance premiums for mutual lodges), vacations, and incidentals. Investments included amounts reinvested in the business, insurance, savings, payments on homes, personal and real property, debts, interest, taxes other than taxes on homes or poll taxes, and losses.



TABLE 4.—AVERAGE EXPENDITURE PER FAMILY FOR EACH GROUP OF ITEMS, AND PERCENTAGE EACH GROUP FORMS OF THE TOTAL EXPENDITURE, BY OCCUPATIONAL CLASSIFICATION

*Amount*

Status	Household	Food	Clothing	Health	Other living expenses	Automobiles	Investments	Total expense
Widows and spinsters.....	\$374	\$400	\$86	\$38	\$76	\$10	\$137	\$1,121
Retired farmers.....	578	342	175	100	162	63	347	1,767
Common labor.....	221	397	125	43	85	30	60	961
Semiskilled labor.....	391	486	193	66	137	70	209	1,552
Skilled labor.....	472	525	230	123	169	110	314	1,943
Clerical or managerial.....	751	575	344	107	311	314	508	2,910
Lower business.....	451	476	241	72	186	127	433	1,986
Lower professional.....	465	528	283	70	383	264	506	2,499
Upper business.....	1,091	590	405	121	514	468	2,185	5,374
Upper professional.....	1,133	729	632	167	683	657	1,591	5,592
Total average.....	582	505	267	90	253	201	575	2,473

*Per cent*

Widows and spinsters.....	33	36	8	3	7	1	12	100
Retired farmers.....	33	19	10	6	9	3	20	100
Common labor.....	23	41	13	5	9	3	6	100
Semiskilled labor.....	25	31	13	4	9	5	13	100
Skilled labor.....	24	27	12	6	9	6	16	100
Clerical or managerial.....	26	20	12	3	11	11	17	100
Lower business.....	23	24	12	4	9	6	22	100
Lower professional.....	19	21	11	3	15	11	20	100
Upper business.....	20	11	7	2	10	9	41	100
Upper professional.....	20	13	11	3	12	12	29	100
Total percentage.....	24	20	11	4	10	8	23	100

As between the lower and the higher income groups the expenditures credited to "investments" showed the greatest difference of any of the items shown in Table 4—ranging from 6 per cent of the total expenditure in the case of common labor to 41 per cent in the upper business group. The report states that all of this difference could not be attributed to differences in the size of the incomes. "Their [the upper classes] sense of the future is stronger than among the lower and less successful classes." However, many of the families in the lower-income groups were exercising forethought for the future, while many of those in the higher-income groups were showing considerable improvidence.

The expenditures for "health," which averaged \$90 per family, included all bills for doctors, dentists, oculists, hospitals, nursing, medicines, births, deaths, cemetery dues, etc. Although the average amounts spent by families in the higher income groups were much greater than in the lower, the proportion of the total budget going for this purpose showed a decrease. This proportional decrease in the professional classes the report ascribes to the number of medical men in this group whose families were the recipients of professional courtesy. "However, the greater decrease in proportion among the upper business group proves that this is a real decline." As between communities, the total amount spent per adult under the head of health showed no tendency to increase with the size of the community. Of the total amount (\$90) an average of \$7 was used for births, deaths, and cemetery expenses. There were 29 births, one

funeral, and minor cemetery expenses. Table 5 shows the average expenditure per family for medical service, by occupation group, excluding the cost of births and deaths.

TABLE 5.—AVERAGE AMOUNT SPENT PER FAMILY FOR MEDICAL SERVICE, BY OCCUPATION GROUP

Status	Doctor, hospital, and nursing expense	All dental expense	All eye expense	All medical expense	Number receiving dental treat- ment per 100 families
Widows and spinsters.....	\$10	\$3	\$5	\$2	22
Retired farmers.....	76	14	2	7	75
Common labor.....	23	7	5	4	54
Semiskilled labor.....	42	13	3	6	96
Skilled labor.....	88	13	5	7	113
Clerical or managerial.....	66	21	5	9	147
Lower business.....	39	12	5	8	103
Lower professional.....	29	29	4	7	156
Upper business.....	77	20	4	4	122
Upper professional.....	98	22	8	15	68
Total average.....	56	16	5	7	104

The study disclosed no important trends in the proportion of the total income devoted to each item included under medical service by the different income groups. Sixty-seven per cent went for doctor, hospital, and nursing bills, 19 per cent for dental treatment, 6 per cent for ocular work, and 8 per cent for medicine. Dental treatment was received by 104 persons in every 100 families, this treatment including inspection and cleaning of teeth by the school dental nurses. Among the lower-income groups school inspection was found to be the primary type of dental treatment, "other than the purchase of false teeth among the adults."

Table 6 gives the total cost of births, including layettes, etc., "as far as it was possible to find these costs," in the different occupation groups.

TABLE 6.—COST OF BIRTHS, BY OCCUPATION GROUP

Status	Number of births	Average cost	Lowest cost	Highest cost
Common labor.....	7	\$29	\$20	\$45
Semiskilled labor.....	2	38	25	50
Skilled labor.....	6	68	25	150
Clerical or managerial.....	5	76	30	150
Lower business.....	3	85	54	140
Lower professional.....	1	45	45	45
Upper business.....	4	141	25	450
Upper professional.....	1	204	204	204
Total.....	29	74	20	450

# IMMIGRATION AND EMIGRATION

## Statistics of Immigration for August, 1929

By J. J. KUNNA, CHIEF STATISTICIAN UNITED STATES BUREAU OF IMMIGRATION

A TOTAL of 41,785 aliens was admitted to the United States during August, 1929, including 22,778 immigrant and 19,007 nonimmigrant. The exodus of aliens this month totaled 29,294, of whom 23,723, or 81 per cent, were nonemigrants going abroad for a short stay or leaving after a visit in this country. The remaining 5,571 were emigrants departing for permanent residence in some foreign country. During the same month 70,783 American citizens returned to the United States and 70,551 left for foreign lands.

Of the 41,785 aliens who entered the country during August, 31,446 came in at the seaports and 25,759, or 81.9 per cent of these landed at New York. Aliens coming via the northern and the southern land borders numbered 8,461 and 1,878, respectively. Europeans comprised 85.9 per cent of the New York arrivals, 22,127 aliens admitted at that port during August being natives of Europe, while 2,786 were born in Canada, Cuba, and other countries in the Western Hemisphere, 569 in Asia, 96 in Africa, and 181 in Australia and the Pacific islands. About 3 out of every 10 aliens entering at our principal seaport during August came back to a permanent residence in this country, 7,848 of the arrivals at New York this month having been admitted as returning residents under the immigration act of 1924. Of the other principal classes under the act, 8,317 were admitted as immigrants charged to the quota, 5,388 were temporary visitors for business or pleasure or persons passing through the country, and 2,858 came in as husbands, wives, or unmarried children of American citizens.

Of the principal classes of the 8,461 aliens entering via the Canadian border, 5,052 came in under the act as natives of nonquota countries, mainly Canada, and 1,681 were quota immigrants, principally natives of Great Britain. Over 80 per cent of the Mexican border arrivals were admitted under the act of 1924 as natives of nonquota countries, 1,520 being of this class, practically all of whom were Mexican immigrants born in Mexico.

Among the 22,778 immigrant aliens admitted during August, 1929, the English race led the list with 3,339 followed by the German with 3,006, while the Irish contributed 2,881, Italian 2,088, Scotch 2,076, French 1,967, Mexican 1,579, and Hebrew 1,066. The other races or peoples contributed less than 1,000 each. During the corresponding month a year ago, the Mexican race led the list by far with 5,472, followed by the German with 3,557, while the English was third in



the list with 2,525. The Irish then sent 2,460, while 1,669 were French, 1,649 were Scotch, 1,642 were Italian, 1,499 were Scandinavian, and 934 were Hebrew.

The statistics for the first two months of the current fiscal year show an increase in immigration from Europe and from Canada but a large decrease from Mexico as compared with the same months a year ago. During July and August, 1929, 22,601 immigrants came from European countries, 13,078 from Canada, and 3,577 from Mexico. In July and August, 1928, 20,575 immigrants were admitted from Europe, 11,338 from Canada, and 10,484 from Mexico.

INWARD AND OUTWARD PASSENGER MOVEMENT DURING JULY AND AUGUST, 1929

Period	Inward					Aliens de- barred from enter- ing <sup>1</sup>	Outward					Aliens de- ported after land- ing <sup>2</sup>
	Aliens admitted			United States citizens arrived	Total		Aliens departed			United States citizens de- parted	Total	
	Immig- rant	Non- immig- rant	Total				Emig- rant	Non- emi- grant	Total			
July, 1929 .....	20,068	15,749	35,817	37,636	73,453	847	5,086	23,084	28,170	56,339	84,509	1,261
August, 1929 .....	22,778	19,007	41,785	70,783	112,568	802	5,571	23,723	29,294	70,551	99,845	1,411
Total .....	42,846	34,756	77,602	108,419	186,021	1,649	10,657	46,807	57,464	126,890	184,354	2,672

<sup>1</sup> These aliens are not included among arrivals, as they were not permitted to enter the United States.

<sup>2</sup> These aliens are included among aliens departed, they having entered the United States, legally or illegally, and later being deported.

### Proposed Ban on Korean Immigration to Japan

**R**ESTRICTION of the number of Korean laborers to be admitted to Japan proper is contemplated by the social-work bureau of the Empire's Ministry of Home Affairs, according to The Trans-Pacific of August 8, 1929. Under the proposed regulation Korean laborers will be required to present written contracts for work issued by employers in Japan. It is stated that this action is being planned in anticipation of a very acute unemployment situation.

In Japan proper in 1914 there were 3,630 Korean laborers and now there are approximately 238,000 such workers in that country. The above-mentioned publication reports that there has been a great demand for these immigrants, who are said to work harder and for less money than the Japanese and to have tended to displace growing numbers of native laborers. Recently, however, available employment for the unskilled has greatly diminished and as a consequence not only additional native laborers but large numbers of Koreans have lost their jobs. Under these conditions, a fresh influx of such immigrants is, the paper declares, regarded as serious.

## PUBLICATIONS RELATING TO LABOR

### Official—United States

INDIANA.—Board of Industrial Aid for the Blind. *Fourteenth annual report of the board and executive secretary for the fiscal year ending September 30, 1928. Indianapolis, 1929. 35 pp., illus.*

During the year under review the Indiana Board of Industrial Aid for the Blind paid \$30,873.50 in wages to the apprentices and employees of the industrial departments, and the sales of manufactured products, etc., from these departments for the 12 months ending September 30, 1928, totaled \$115,522.79.

MASSACHUSETTS.—Department of Labor and Industries. *Annual report on the statistics of labor for the year ending November 30, 1928. Part II: Time rates of wages and hours of labor in Massachusetts, 1928 (Labor Bulletin No. 155). [Boston, 1929?] 121 pp.*

Figures from this publication are given in this issue.

MISSOURI.—Board for Vocational Education. *Bulletin No. 19: Courses of study—vocational home economics. Jefferson City, 1928. 198 pp.*

A suggestive outline for the use of teachers of future home makers.

— *Bulletin No. 20: Report beginning July 1, 1926, and ending June 30, 1928. Jefferson City, 1928. 71 pp., illus.*

Reviewed in this issue.

UNITED STATES.—Department of Commerce. Bureau of Mines. *Bulletin 298: Methods, costs, and safety in stripping and mining coal, copper ore, iron ore, bauxite, and pebble phosphate. Washington, 1929. 275 pp., illus.*

— — — *Miners' circular No. 36: Advanced mine rescue training. Part IV.—Suggested procedure in sealing and unsealing mine fires and in recovery operations, by J. J. Forbes and G. W. Grove. Washington, 1929. 54 pp.; diagrams, illus.*

— Department of Labor. Bureau of Labor Statistics. *Bulletin No. 485: Proceedings of the fifteenth annual meeting of the International Association of Industrial Accident Boards and Commissions, held at Paterson, N. J., September 11–14, 1928. Washington, 1929. 256 pp., illus.*

A brief account of this meeting was published in the Labor Review for November, 1928 (p. 76).

— — — *Bulletin No. 488: Deaths from lead poisoning, 1925–1927, by Frederick L. Hoffman. Washington, 1929. 37 pp.*

A summary of this bulletin is given in this issue of the review.

— — — *Bulletin No. 492: Wages and hours of labor in cotton-goods manufacturing, 1910 to 1928. Washington, 1929. 52 pp.*

Summary figures from this report were published in the Labor Review for October, 1928 (p. 89).

— Department of the Interior. Bureau of Education. *Bulletin, 1929, No. 23: Adult education activities during the biennium 1926–1928, by L. R. Alderman. Washington, 1929. 18 pp. (Advance sheets from the Biennial Survey of Education in the United States, 1926–1928.)*

Reviewed in this issue.

## Official—Foreign Countries

CANADA.—Department of Labor. *Eighteenth annual report on labor organization in Canada (for the calendar year 1928)*. Ottawa, 1929. 253 pp.; charts.

Trade-union membership statistics from this report are given in this issue.

— (BRITISH COLUMBIA).—Department of Labor. *Annual report for the year ended December 31, 1928*. Victoria, 1929. 84 pp.

GERMANY.—Reichsarbeitsministerium. *Die Tarifverträge im Deutschen Reiche am 1. Januar 1928, nebst einem Anhang: Die Reichstarifverträge am 1. Januar 1928, bearbeitet im Statistischen Reichsamt*. Berlin, 1929. 12\*, 47 pp.; charts. (47. Sonderheft zum Reichsarbeitsblatt.)

Certain figures from this report on trade agreements in Germany are given in this issue of the Labor Review.

— Statistisches Reichsamt. *Die Wirtschaft des Auslandes, 1900–1927*. Berlin, 1928. 910 pp.

Contains information in regard to economic developments and policies in 44 countries during the period 1900 to 1927, including labor conditions, wages, unemployment, etc.

— (HAMBURG).—Statistisches Landesamt. *Statistisches Jahrbuch für die Freie und Hansestadt Hamburg, 1928–29*. Hamburg, 1929. 432 pp.

Contains information in regard to the economic and social life of the city of Hamburg, including social insurance, employment service, unemployment, and other labor conditions.

HUNGARY.—Office Central de Statistique. *Annuaire statistique Hongrois, 1927*. Budapest, 1929. 338 pp.

Contains statistical information in regard to Hungary for 1927, including population, social insurance, unemployment, industrial accidents, housing, labor disputes, prices, etc.

INTERNATIONAL LABOR OFFICE.—*The regulation of hours of work on board ship. (Item I on agenda of International Labor Conference, thirteenth session, Geneva, 1929; first discussion.)* Geneva, 1929. 293 pp.

NORWAY.—Statistiske Centralbyrå. *Statistisk årbok for Kongeriket Norge, 1929*. Oslo, 1929. 266 pp.

The yearbook contains statistical information in regard to Norway, including social insurance, unemployment, wages, and other labor conditions.

— (OSLO).—Arbeidskontor. [*Beretning*], 1928. Oslo, 1929. 29 pp. (*Norges Offentlige Arbeidsformidling*.)

Contains information in regard to the labor conditions in the city of Oslo during 1928.

POLAND.—Ministère du Travail et de l'Assistance Sociale. *L'Inspection du travail en 1927*. Warsaw, 1929. cxxvii, 370 pp. (*In Polish and in French*.)

Detailed report on labor inspection in Poland during 1927.

— (WARSAW).—Magistrat M. St. Warszawy. *Rocznik Statystyczny Warszawy, 1927*. Warsaw, 1929. 276 pp.

This yearbook contains statistical information in regard to the city of Warsaw for 1927, including wages, employment, public works, etc.

SWITZERLAND.—Caisse Nationale Suisse d'Assurance en Cas d'Accidents. *Rapport annuel et comptes pour l'exercice, 1928*. [Berne?], 1929. 48 pp.

The financial report of the Swiss National Accident Insurance Fund.



## Unofficial

ADLER, JEAN. *La législation relative à l'apprentissage dans les cantons suisses remands*. Paris, Librairie Générale de Droit et de Jurisprudence, 1929. 162 pp.

A study of the legal regulation of apprenticeship in the French-speaking Cantons of Switzerland. The analysis of the legislative enactments shows in which cases the purpose of the law is the protection of the apprentice, those in which the proper training of the apprentice is the principal aim, and those which combine the two objects.

ALBERTSWORTH, E. F. *Selected cases and other authorities on industrial law*. Chicago, Northwestern University Press, 1928. 782 pp.

The volume is divided into three parts: Part I, Relations between employer and employee, covering personal injury, disease, and death of the employee, and trade disputes, with a historical survey of legislation; Part II, Relations between producer and producer; and Part III, Relations between industry and the State.

ALLGEMEINER DEUTSCHER GEWERKSCHAFTSBUND. *Jahrbuch*, 1928. Berlin, 1929. 323 pp.

Yearbook of the German Federation of Labor for 1928.

BEZANSON, ANNE, AND GRAY, ROBERT. *Trends in foundry production in the Philadelphia area*. Philadelphia, University of Pennsylvania Press, 1929. 77 pp.; charts.

BIBBY, JOHN P. *Unemployment: An analysis and suggested solution*. London, P. S. King & Son (Ltd.), 1929. 136 pp.

CAILLAT, J., ET DEPAEMELAERE, F. *Anthologie du travail. Tome premier: Les villes*. Paris, Les Arts & Le Livre, 1928. 305 pp., illus.

A collection of extracts, mainly from French authors, which voice the dignity of human labor.

CANNAN, EDWIN. *A review of economic theory*. London, P. S. King & Son (Ltd.), 1929. 448 pp.

CHASE, STUART. *Men and machines*. New York, Macmillan Co., 1929. 354 pp., illus.

COMITÉ CENTRAL DES ALLOCATIONS FAMILIALES. *Annuaire*, 1928-29. Paris, 1929. 460 pp.

This yearbook of the French committee on family allowances gives data on the administration and regulations of the family allowance funds affiliated with that body and includes a section dealing with the legal aspects of family allowances. A collection of legal provisions regarding the family adds to the value of the volume.

DETRIEUX, H. *Les oeuvres sociales dans la grande industrie en France—prévoyance sanitaire, organisation médicale*. Paris, Les Presses Universitaires de France, 1929. 132 pp.

An account of the welfare work of various great French establishments with particular reference to their medical and health work.

GUINOT, JEAN. *La protection légale des salaires et des appointements dans la faillite de l'employeur*. Paris, Librairie du Recueil Sirey, 1929. 128 pp.

A discussion of the legal provisions in France for the protection of wages and salaries in the event of the business failure of the employer.

HOFFMAN, FREDERICK L. *Some final results of the San Francisco cancer survey. An address delivered in the section on practise of medicine, American Medical Association, Portland, Oreg., July, 1929*. Newark, Prudential Press, 1929. 25 pp.

This survey of the cancer situation in San Francisco shows an increase in the cancer rate from 81.1 per 100,000 in 1916 to 95.6 in 1927.

IRWIN, W. A. *The Canadian wheat pool: A series of articles on the most colossal commercial enterprise of its kind in the world.* [Winnipeg], Canadian Wheat Pool Publicity Department, 1929. 24 pp., illus. (Reprinted from Maclean's Magazine.)

Some of the data from these articles are given in this issue of the Labor Review.

KIMBALL, DEXTER S. *Industrial economics.* New York, McGraw-Hill Book Co. (Inc.), 1929. 312 pp.; charts, illus. 1st ed.

LAIRD, DONALD A. *Psychology and profits.* New York, B. C. Forbes Publishing Co., 1929. 272 pp.

LE ROY, EUGÈNE. *La charte du travail en Italie sous le régime fasciste.* Paris, Librairie Arthur Rousseau, 1928. 130 pp.

A discussion of the Fascist conception of the State, the various Italian organizations of labor and of employers, and agreements made between these two groups, the labor courts, and the corporative Chamber of Deputies. The book closes with expressions of opinion of the situation, by Italians, national unions, communists, socialists, and liberals.

LESSER, GERDA. *Die Freisetzung des Arbeiters durch die Maschine.* Rostock, Carl Hinstorffs Verlag, 1928. 121 pp. (Hamburger Wirtschafts und Sozialwissenschaftliche Schriften, Heft 7.)

Contains a review of the Marxian theory of freeing the wage earners and a criticism of this theory by Oppenheimer.

METROPOLITAN LIFE INSURANCE CO. Policyholders Service Bureau. *Preventing foundry accidents: A factual study.* New York, [1929?]. 26 pp.; charts.

MINNESOTA, UNIVERSITY OF. *Minnesota bulletin 253: Incomes and expenditures of village and town families in Minnesota, by Carle C. Zimmerman.* St. Paul, March, 1929. 47 pp.

Reviewed in this issue.

NATIONAL ASSOCIATION OF COTTON MANUFACTURERS. *Yearbook, 1929.* Boston, 80 Federal Street, 1929. 359 pp.; map, charts.

Contains sections on wages and cost of living, wage rates and manufacturing margin, and legal working hours for women.

NATIONAL INDUSTRIAL CONFERENCE BOARD. *Industrial relations activities at Cheney Brothers, South Manchester, Conn.* New York, 247 Park Avenue, 1929. 88 pp.; charts.

NATIONAL SAFETY COUNCIL. *Universal safety series: Twelve addresses by distinguished leaders in the business, political, scientific, and educational life of the Nation, as presented over the radio in the national safety campaign conducted by the National Broadcasting Co., New York City, in cooperation with the National Safety Council, 1929.* Chicago, 108 East Ohio Street, 1929. 63 pp., illus.

NATIONAL TRADE UNION SAFETY STANDARDS COMMITTEE FOR THE BUILDING TRADES. *A safety code for workers in the construction industry, prepared by Rudolph P. Miller.* New York, Labor Research Association, 80 East 11th Street, May, 1929. 48 pp.

ORCHARD, DOROTHY J. *Agrarian problems of modern Japan.* Reprinted from the *Journal of Political Economy*, April and June, 1929. 48 pp.; maps.

According to this study, landlords in Japan are in favor of the nationalization of the land and tenants strongly object to undertaking ownership. The author also reports that inter-union warfare has dissipated the energies of the organized tenant-farmer movement and that the highly difficult problem of the Nation in the face of its agrarian dilemma is the reorganization of its basic industry for the benefit of the whole population.

PLAYGROUND AND RECREATION ASSOCIATION OF AMERICA. *Public recreation facilities: An analysis of construction and operation costs of selected facilities in sixty American cities.* In *Playground and Recreation*, New York, August, 1929, pp. 271-354.

This report on public recreation facilities gives details in tabular form of the type of construction—dimensions, material, etc.—of the different playground facilities in a large number of cities and towns, together with a general statement of the best types of construction to meet different natural conditions. The report contains much information of a practical nature for park and recreation authorities.

PROSPECT UNION EDUCATIONAL EXCHANGE. *Educational opportunities of Greater Boston: Day and evening courses for working men and women.* Catalog No. 7, 1929-1930. Cambridge, Mass., 760 Massachusetts Avenue, 1929. 146 pp.

SCHMOLLERS JAHRBUCH FÜR GESETZGEBUNG, VERWALTUNG UND VOLKSWIRTSCHAFT IM DEUTSCHEN REICHE. 53. Jahrgang, viertes Heft. München und Leipzig, Duncker & Humblot, 1929. 163 pp.

Contains articles and reviews on various economic and social subjects, including those of labor.

SIEW, B. *Letlands Sozialpolitik.* Riga, Müllerschen Buchdruckerei, 1927. 63 pp.

Contains a review of Latvian economic conditions, governmental social policies, and legislation, with special reference to labor.

THE SOVIET UNION LOOKS AHEAD. *The five-year plan for economic construction.* New York, Horace Liveright, 1929. 275 pp.; maps, charts.

Contains a detailed review of the five-year plan for the economic development of the Soviet Union, including plans for the increase of productivity of labor and wages.

TOURAILLE, HENRY. *Les crises économiques et particulièrement la crise de 1920-1921 dans l'industrie textile.* Paris, Imprimerie Crété, [1926?]. 259 pp.

A discussion of the causes of economic crises and their possible remedies, with particular consideration of the crisis of 1920-1921.

UNITED STATES LEAGUE OF LOCAL BUILDING AND LOAN ASSOCIATIONS. *Secretary's annual report, submitted to the thirty-seventh annual meeting, at Salt Lake City, Utah, August 27-29, 1929.* Cincinnati, 1929. 127 pp.

Certain data from this report are given in this issue.

WERTHEIMER, EGON. *Portrait of the Labor Party.* London and New York, G. P. Putnam's Sons, 1929. 216 pp.

This book, a translation from the German, gives the impressions of a German newspaper correspondent of the English Labor Party, with pictures of some of the leading figures in its ranks, a study of its purposes and aims, and a discussion of the differences between it and the Continental labor parties.

YODER, DALE. *Labor attitudes in Iowa and contiguous territory.* Iowa City, College of Commerce, State University of Iowa, 1929. 192 pp. (Iowa studies in business No. 5.)

The results of a study of various sources, including labor papers, trade journals, and labor organizations, and of interviews with various types of workingmen. Covers the attitude of labor toward the business structure, the industrial system, politics, and international relations.

YVER, COLETTE. *Femmes d'aujourd'hui—enquête sur les nouvelles carrières féminines.* Paris, Calman-Lévy, Éditeurs, 1929. 209 pp.

This study deals with the new careers which have opened up to women in recent years, particularly those in the professions.

